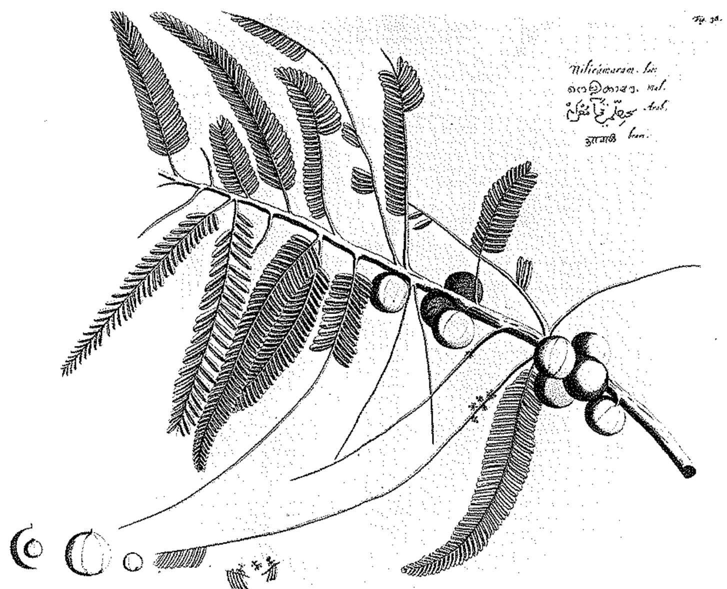
A History of Indian Medical Literature

VOLUME II A



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A History of Indian Medical Literature

VOLUME IIA TEXT

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Part 6

Some important authors and works

Chapter 1
Bower Manuscript

The *Bower Manuscript* is named after H. Bower who, being then a lieutenant, obtained it, early in the year 1890, in Kucā from a local inhabitant during a confidential mission from the Government of India. Kucā[1] is the name of one of the principal oases and settlements of Eastern Turkestan (part of China), on the ancient great caravan route to China. The MS was found by native treasure-seekers in a stūpa close to the Ming-Öi (the "Thousand Houses", a system of rock-cut grottos with Buddhist shrines)[2] of Qum Turā, about 13 (or 16) miles from Kucā, in February 1890. On his return to India, Lieutenant Bower took the MS to Simla, whence it was forwarded to Colonel J. Waterhouse, who was then the President of the Asiatic Society of Bengal. Colonel Waterhouse exhibited the MS at the monthly meeting of the Society on November 5, 1890, when also a note from Lieutenant Bower was read, explaining the circumstances of the discovery. After the meeting some attempts were made to decipher the MS, but they proved unsuccessful.[3] However, a German Indologist, G. Bühler, succeeded in reading and translating two leaves of the MS,[4] reproduced in the form of heliogravures in the Proceedings of the Asiatic Society of Bengal.[5] Immediately after his return to India in February 1891, A.F.R. Hoernle began to study the MS.[6] At the meeting of the Society in April 1891, he was able to communicate the first decipherment.[7] The Government of India sanctioned, in 1892, Hoernle's proposal to prepare a complete edition of the text, illustrated with facsimile plates, and accompanied by an annotated English translation. The first part of the edition appeared in 1893, the second part (in two fasciculi) in 1894–95, and the remaining parts in 1897. After an interruption of several years, the Sanskrit Index was published in 1908, and a revised translation of the medical portions (I, II, and III) in 1909; the Introduction appeared in 1912.[8]

The Manuscript[9]

The term 'Bower Manuscript' is not strictly correct, since it is, as to size, a combination of two manuscripts, a larger and a smaller. The larger manuscript is a complex of six smaller manuscripts which are separately paginated. The Bower Manuscript is therefore, in reality, a collection of seven distinct manuscripts, indicated as parts I to VII in Hoernle's edition.

The manuscript is written on fifty-one birch bark leaves of an oblong shape, in the form of those of an Indian pothī. The birch bark of the large portion of the manuscript is of a quality much inferior to that of the smaller portion. The hole for the passage of the binding string is placed about the middle of the left half of the leaves. This placement

of the string hole and the oblong form of the leaves point to an imitation of palm leaf pothīs from Southern India by the scribes of Kucā.[10]

The seven parts of the manuscript are written in an essentially identical script, the Gupta script, which prevailed in Northern India from the fourth to the sixth centuries A.D. Some graphic peculiarities of the Bower MS indicate, according to Hoernle, that it was written at some time within the fourth century A.D.[11] Distinctive characters of the script used enabled Hoernle to distinguish four different scribes,[12] who wrote parts I–III, part IV, parts V and VII, and part VI respectively. He also arrived at the conclusion that the writers of parts I–III and V–VII were natives of India who had migrated to Kucā. To judge from the style of writing, the scribe of parts I–III originally came from the northern, the two scribes of parts V–VII from the southern part of the northern area of the Indian Gupta script. The writer of part IV may have been a native of Eastern Turkestan. All four writers must have been Buddhist monks, residing in a monastery near Kucā.

The ultimate owner of the whole series of manuscripts, whose name appears to have been Yaśomitra,[13] must have held a prominent position in that monastery, for the bundle of manuscripts was contained in the relic chamber of the memorial stūpa built in his honour.[14]

Language

The language in which the treatises of the Bower MS are written is a kind of mixed Sanskrit, i.e., a mixture of current literary Sanskrit and a Sanskrit with a varying proportion of prakritisms. The influence of Prakrit is far more pronounced in the more popular treatises on divination and incantation in parts IV–VII than in the more scientific medical treatises of parts I–III.[15]

Contents

Parts I to III, the three medical treatises of the collection, comprise a total of 1,323 verses and some prose;[16] almost all the stanzas are written in three metres, the śloka, triṣṭubh, and āryā; the śloka predominates, taking up about seventy percent of the whole. The total number of different metres is twenty-three;[17] part I, in proportion to its extent, contains an extraordinarily large number, not less than nineteen, distributed over 132 verses; in part II there are nine metres to 1,119 verses, and in part III four metres to seventy-two verses. It is evident from this familiarity with metrical writing that the author of the three medical treatises was well versed in Sanskrit composition. Although the substance of part II, which is a compilation, is not his own original composition, certain portions of it may well be his own contribution, not only the ten introductory verses, but also a number of scattered stanzas.[18] In contrast with the treatise in part II, the treatises in parts I and III do not not consist of compilations from earlier sources, but are rather original compositions.

The author of parts IV–VII was not conversant with scholarly Sanskrit; these treatises are written in a mixed type of language. A considerable portion is in prose, and

whatever is in metrical form, is entirely in the easy śloka metre. The surviving fragment of part VII is entirely in prose; the only portion of part VI that is metrical is the charm in seventeen verses. Part V, on the other hand, is entirely in verse, and so is part IV, with the exception of its five introductory lines, which are in prose.

Part I opens with a flowery description of the Himālayas, where a group of munis reside, interested in the names and properties of medicinal plants.[19] Mentioned by name are the following sages: Ātreya, Hārita,[20] Parāśara, Bhela, Garga, Śāmbavya,[21] Suśruta, Vasiṣṭha, Karāla, and Kāpya (7–8). Suśruta, whose curiosity is aroused by a particular plant, approaches muni Kāśirāja,[22] enquiring about the nature of this plant. Kāśirāja, granting his request, tells him about the origin of the plant, which proves to be garlic (laśuna), its properties and uses (9–43). Kāśirāja's exposition on the subject is called the laśunakalpa, as taught by the ancient sages.

A small tract on miscellaneous subjects follows. It contains verses on the digestive fire (agni; 44–51),[23] some rasāyana formulae (52–54), technical rules about the proportions of the ingredients of compound medicines (55–59), a vājīkaraṇa formula (60), and a rasāyana recipe attributed to Agasti (61–68).

Next come sections devoted to eye lotions (āścyotana; 68–86), face plasters (mukhalepa or vadanapralepa; 87–105), collyria and pastes for the eyelids (añjana, viḍālaka;[24] 106–111), remedies against baldness and grey hair (khālitya and palita; 112–120), and recipes against cough, especially cough caused by deranged vāta (121–132).

Part II, which opens with a salutation addressed to the Tathāgatas, contains, as stated by the author, the *Nāvanītaka*,[25] a standard manual (siddhasaṃkarṣa), containing the foremost formulae of the great sages, made up by them of old (1–2). It was originally divided into sixteen chapters (adhyāya), the headings of which are enumerated in the introductory verses (4–9). The introduction ends with the recommendation not to transmit the *Nāvanītaka* to anyone without a son, a brother or a disciple.

Chapter one (11–107; on cūrṇayogas according to the introduction and the colophon) contains recipes for powders (cūrṇa), linctuses (leha) and pills (guṭikā); chapter two (108–260) deals with medicated ghees (ghṛta), and chapter three (261–403) with medicated oils (taila).

The contents of chapter four (miśraka; 404–617) are of a miscellaneous nature: two recipes against vātarakta (404–405), four recipes against āmātīsāra (406–412), four recipes for mahāsaṃgrāhika preparations[26] (413–417), a formula for a styptic (sthāpana) to be employed in haemorrhagic conditions (raktapitta) and abortions (pracyutagarbha) (418–425), four formulae against pravāhikā (426–430), twenty formulae against cough (kāsa) (431–468), five formulae against hiccup (hikkā) (469–473), eight formulae against cough (474–483), two formulae against a wide range of diseases (484–494), six formulae against fevers (494–505), two formulae against various disorders (505–508), five formulae[27] against diseases of the head (śīrṣaroga) (508–521), three formulae against coryza (pratiśyāya) (522–524), four formulae against toothache (dantaśūla) (525–531), six formulae against diseases of the ears (karṇaśūla) (532–542), formulae against some skin diseases (542–569), four

formulae against sidhma (569–574), seven formulae against strangury (mūtrakṛcchra) (575–584), a formula against epistaxis (584), four formulae against inflammatory swelling (śotha) (585–592), five formulae against vomiting (chardi) (593–597), three formulae against morbid thirst (tṛṣṇā) (598–602), six formulae against urinary disorders (prameha) (603–608), four formulae against erysipelas (visarpa) (608–613), and three formulae against morbid pallor and jaundice (pāṇḍu and kāmālā) (614–617).

Chapter five (618–648) contains formulae for enemas (basti),[28] and chapter six (715–784) rasāyana formulae. Chapter seven (785–813) is about gruels (yavāgū). Chapter eight (814–817) is concerned with aphrodisiacs (vṛṣya), chapter nine (848–890) with collyria (añjana), and chapter ten (891–916) with hair dyes (keśarāga).[29]

Chapters eleven (917–949), ten (950–967), and eleven (968–976)[30] describe the kalpas of harītakī, śilājatu, and citraka.

Chapter fourteen (1010–1119), which is incomplete, is about the treatment of children's diseases (kumārabhṛtya). Chapters fifteen and sixteen, missing in the MS, were, according to the table of contents at the beginning of part II, about the treatment of barrenness (vandhyācikitsita) and disorders in pregnant and nursing women (subhagācikitsita).

Part III is a fragment of a formulary, the contents of which correspond to chapters one to three of part II. It contains formulae arranged according to the type of preparation, but this arrangement is inconsistent in the preserved portion. The preparations are mixed up: oils (1–4; 5–9; 10–14; 36–53), a powder (15–19), linctuses (20–24; 61–62), a ghee (25–36), liniments (lepa; 54; 55–56; 65), boluses (modaka; 57–60), and pills (63–64; 66–72).

Parts IV and V contain two short manuals of Pāśakakevalī, or cubomancy, i.e., the art of foretelling a person's future by means of the cast of dice. Part IV is a practically complete treatise on this art, while the manual in part V, quite independent of that in part IV, is very fragmentary.

Parts VI and VII contain two different portions of the same text, the *Mahāmāyūrī Vidyārājñī*, a Buddhist dhāraṇī that protects against snake-bite and other evils.[31]

Medical authorities mentioned in parts I–III are: Agasti,[32] Agastya,[33] the Aśvins,[34] Ātreya,[35] Bhela,[36] Brahmā,[37] Bṛhaspati,[38] Cyavana,[39] Dhanvantari,[40] Garga,[41] Hārita,[42] Janakeśvara,[43] Jīvaka,[44] Kāṅkāyana,[45] Kāpya,[46] Karāla,[47] Kāśirāja,[48] Kāśyapa,[49] Keśava,[50]

Māṇibhadra,[51] Mārkaṇḍeya,[52] Nārāyaṇa,[53] Nimi,[54] Parāśara,[55] Śaiveśvara,[56] Śakra,[57] Śāmbavya,[58] Suprabha,[59] Suśruta,[60] Svayaṃbhū,[61] Uśanas,[62] Vāḍvali,[63] Vāsava,[64] Vasiṣṭha,[65] and Viśvāmitra.[66]

Hoernle's edition of the Bower MS is extensively annotated. A large part of the notes to parts I–III is devoted to parallels of the formulae in other treatises and the search for possible sources. P. Cordier contributed to these investigations and some important additions to Hoernle's discoveries are owed to his intimate knowledge of the medical literature.[67] J. Jolly[68] also added parallels to Hoernle's early annotated translation.

Twelve passages are found in the *Bhelasaṃhitā*,[69] three of which only are explicitly attributed to Bhela. These twelve passages, containing recipes, are:[70] (1) II.43–55 (ayorājīyacūrṇa) = Bhela Ci.17.33–45 (ayorājīya); (2) 165–169a (rasāyanikaghṛta) = Ci.4.34cd–38ab (rasāyanīyasarpis); (3) 202–203 (daśāṅgaghṛta) = Ci.5.17–19 (daśāṅgaghṛta); (4) 329–330a (sahacarataila) = Ci.24.32a–33 (sahacarataila);[71] (5) 337–343 (madhuyaṣṭikataila) is closely related to Ci.4.79–90 (śatapākamadhukataila); (6) 407–408 (a formula against āmātīsāra) = Ci.10.12–13; (7) 409–410 (idem) = Ci.10.6–7; (8) 411–412 (idem) = Ci.10.8–9; (9) 474–479 (a recipe against cough) = Ci.20.26cd–32 (475 is more distantly related to Ci.20.27cd–28); (10) 534b–537a (a recipe against karṇaśūla) = Ci.21.53–55; (11) 642–644 (tailādyabasti) is related to Si.8.60–62; (12) 803–804, a mantra to be recited after taking the bhelī yavāgū (802), is found at Bhela Sū.7.16–17, where it is not connected with any gruel, but with general rules for the preservation of health.[72]

It may well be that more recipes of the Bower MS would prove to derive from Bhela, if it were possible to consult a complete MS of the *Bhelasaṃhitā*. Three recipes of the Bower MS, absent from the Tanjore MS of the *Bhelasaṃhitā*, are attributed to Bhela in Candraṭa's *Yogaratnasamuccaya*:[73] II.280–286 (balātaila), 399–401 (gaṇḍamālāyoga), and 1059–1060 (lākṣādisarpis).

A considerable number of formulae from parts I–III of the Bower MS form part of the *Carakasaṃhitā*, although Caraka is never mentioned, nor Agniveśa. These formulae are:[74] (1) II.11–13 (tālīsakacūrṇa) = Ca.Ci.8.145–147 (tālīśādyacūrṇa); (2) 14–17 (ṣāḍavacūrṇa) = Ci.8.141–144 (yavānīṣāḍava); (3) 24a = Ci.5.92cd; (4) 25–26 (vardhamānakacūrṇa) = Ci.8.103–104; (5) 29–34 (mātuluṅgaguṭikā) = Ci.5.79–84 (hiṅgvādicūrṇaṃ guṭikā ca); (6) 133–136 (tiktakaghṛta) = Ci.7.140–143 (tiktaṣaṭpalakaghṛta); (7) 137–143 (mahātiktakaghṛta) = Ci.7.144–150 (mahātikakaghṛta); (8) 150–151 (ṣaṭpalaghṛta) = Ci.5.147–148 (kṣīraṣaṭpalakaghṛta); (9) 152 (tryūṣaṇaghṛta) = about the same as Ci.5.65cd–66ab (tryūṣaṇādighṛta); (10) 153–154 (vāsāghṛta) is related to Ci.5.126–127 (vāsāghṛta); (11) 155–157 (cāṅgerīghṛta) = Ci.14.110–112; (12) 169–176 (śaramūlīyaghṛta) = Ci.2^1.24cd–33ab (bṛṃhaṇīguṭikā); (13) 188–200 (cyavanaprāśaghṛta) = Ci.1^1.62–74 (cyavanaprāśa); (14) 383–385 (jvaraharānuvāsanataila) = Ci.3.250–251; (15) 386–389 (anuvāsanataila) = Ci.14.131–134; (16) 460–462 = Ci.5.123–125 (drākṣādyaghṛta); (17) 484–490 (prasthavireka) is related to Ci.5.154–160 (dantīharītakī); (18) 491–493 (madhvāsavayoga) = Ci.6.41–44 (madhvāsava); (19) 494–495a = Ci.3.206–207ab; (20) 496b–499a = Ci.3.200cd–203ab; (21) 603 (pramehapraśamanayoga) = Ci.6.26; (22) 645–649 (picchābasti), a recipe found in Ci.10, according to Hoernle, but absent there;[75] (23) 742–743 = Ci.1^3.30–31 (medhyarasāyana); (24) 745–748 (pippalīprayoga) = Ci.1^3.32–35 (pippalīrasāyana); (25) 749–752 (dvitīyapippalīprayoga) = Ci.1^3.36–40; (26) 819 = Ci.2^3.18 (vṛṣya śatāvarīghṛta); (27 and 28) 844b–846a = Ci.2^1.46–47 (vṛṣyamāṃsa and vṛṣyamāṣayoga); (29) 957–967a (śilājatukalpa) = Ci.1^3.48–65 (śilājaturasāyana).

Hoernle claimed[76] that parallels of six formulae from the *Nāvanītaka* occur in the

Suśrutasaṃhitā.[77] *Nāvanītaka* 407–412, a series of prescriptions against āmātīsāra, also found in the *Bhelasaṃhitā*, is, in his view, based on Su.U.40.34cd–46, a long prescription on the treatment of āmātīsāra, consisting of twenty options and a single directive statement at the end. He argued that both the *Bhelasaṃhitā* and the *Nāvanītaka* have drawn upon the Uttaratantra of the *Suśrutasaṃhitā* in their verses on the therapy of the disorder. His assertion on this point seems arbitrary; the textual disagreements plead against it, as well as the chronological position of the Uttaratantra.[78]

Hoernle was also convinced[79] that three aphrodisiac formulae (829–830a; 833–835a) corresponded to some verses from the Cikitsāsthāna of the *Suśrutasaṃhitā* (from Ci.26.27cd–34), but, in this case too, the resemblances are superficial and not convincing.[80]

P. Cordier[81] advanced that *Nāvanītaka* 188–200 (the formula of cyavanaprāśaghṛta) goes back to Agniveśa, 277–279 (the second formula of balātaila) to Hārīta, 251–257 (the formula of bindughṛta, attributed to the Aśvins) to Kṛṣṇātreya,[82] and III.37–52 (the formula of siddhārthakataila, attributed to Nārāyaṇa) to Śālihotra. The formula of sūkṣmelāvardhamānaka (*Nāvanītaka* 64–65) is, according to P. Cordier, found in chapter two of the *Bṛhadvaidyaprasāraka*, and twenty-eight verses are said to occur in the *Kalyāṇasaṃgraha*.

In spite of Hoernle's efforts in tracing the formulae of the *Nāvanītaka* in other medical works,[83] many of them remain unidentified.[84]

Some recipes from the *Nāvanīta(ka)* form part of Cakrapāṇidatta's *Cikitsāsaṃgraha*, as indicated by Niścala.[85]

One formula is found in Niścala's *Ratnaprabhā*.[86]

A *Nāvanītaka* is quoted by Anantakumāra,[87] Candraṭa,[88] Niścalakara,[89] and Śivadāsasena.[90] A *Nāvanītakasaṃhitā* is one of the sources of the *Rasayogasāgara*.

Parts IV and V of the Bower MS have no relevance to medicine, being works on fortune-telling, a subject belonging to the province of jyotiṣa.[91] Hoernle believed it to be probable that part V is one of the numerous recensions of the work on Pāśakakevalī, the divination by dice, ascribed to the ancient sage Garga,[92] who is known as an authority on jyotiṣa.

Parts VI and VII contain two portions of the *Mahāmāyūrī Vidyārājñī*,[93] a well-known Buddhist charm (dhāraṇī). Part VI opens with a story about the Buddha who gives the Mahāmāyūrī spell to Ānanda in order to save the life of the young bhikṣu Svāti who was bitten by a snake.[94] The *Mahāmāyūri* forms part of the *Pañcarakṣā*, a collection of five dhāraṇīs.[95] The version in the *Pañcarakṣā* is much longer than the earlier one, represented by the portions preserved in parts VI and VII of the Bower MS. The expanded version appears to have developed in the course of the fifth or sixth centuries A.D. Three of the six translations in the Chinese *Tripiṭaka*[96] are based on the expanded recension, while the three others show a more primitive form. The latter three belong to the fourth century A.D. Originally, the *Mahāmāyūrī* seems to have been a separate work, independent of the *Pañcarakṣā*.[97]

The *Mahāmāyūrī* is mentioned in Vāgbhaṭa's *Aṣṭāṅgasaṃgraha*[98] and Soḍhala's *Gadanigraha*.[99] It is also referred to in Bāṇa's *Harṣacarita*, where the author says that it was recited when Prabhākaravardhana, Harṣa's father, was dying.[100]

Special features

The description in part I of the assembly of sages in the Himālayas shows resemblances with the way in which the *Carakasaṃhitā* begins, but the composition of the group is different and the divine origin of āyurveda is not mentioned. Remarkable is the rôle played by Suśruta and his teacher Kāśirāja in the verses introducing the laśunakalpa.[101]

A noteworthy feature of part I is this laśunakalpa,[102] which occurs separately from the three kalpas in part II. Kalpas of the type found in the Bower MS constitute an essential part of Sanskrit medical lore. They usually describe the mythical origin of a particular medicinal plant, its names, properties, actions, and a variety of recipes in which the plant is an important ingredient. The laśunakalpa of the Bower MS has parallels in other medical treatises, for example the *Aṣṭāṅgahṛdayasaṃhitā* (U.39.111–129), *Aṣṭāṅgasaṃgraha* (U.49.161–213), *Kāśyapasaṃhitā* (Kalpasthāna, laśunakalpādhyāya), and *Hārītasaṃhitā* (Kalpa 4).[103] The stories about the origin of garlic vary in these texts, but all the versions connect it with the rape of the amṛta at the churning of the ocean.[104] The account of the Bower MS on the properties and uses of garlic shows some peculiarities which are absent from or disagreeing with other medical texts.[105] A garlic-festival (laśunotsava) is described (I.17–18), and a procedure which circumvents the interdiction for brāhmaṇas to make use of garlic, by making it pass through a cow (I.34).[106]

The harītakīkalpa of the Bower MS has parallels in the harītakīkalpas of the *Hārītasaṃhitā* (Kalpa 1) and *Aśvinīsaṃhitā*.[107] The story about the mythical origin of harītakī is told in a number of medical texts.[108] In the same vein as many medical treatises, the Bower MS enumerates seven kinds of harītakī.[109] A close parallel to the śilājatukalpa occurs in the *Carakasaṃhitā* (Ci.1³.48–65).[110] Other versions of a śilājatukalpa form part of a number of medical treatises.[111] The third kalpa of the Bower MS, the citrakakalpa, has almost no parallels elsewhere in medical literature.[112]

The well-known rasāyana procedure, called pippalīvardhamāna, differs in the Bower MS (II.716–737) from the related prescription found in a large number of Sanskrit treatises,[113] in being more complicated and taking a much longer time for its completion. The patient is advised to take one long pepper (pippalī) on the first day, and to increase the dose for ninety-nine consecutive days by one pepper daily, resulting in an intake of one hundred long peppers on the hundredth day. Thereupon, the dose is to be reduced by one pepper each day. At the end of this course a particular diet is to be observed for twenty-one days. An alternative shortened version of the procedure is also described in the Bower MS (II.749–752: pippalīsahasra).[114]

An important peculiarity of the Bower MS consists of its varying attitude towards the number of the doṣas. In many instances it accepts the traditional number of three, vāta, pitta, and kapha,[115] but in a smaller number of passages it appears to accept blood (rakta) as a doṣa. A series of drugs are enumerated which cure in the rainy season disorders caused by vāta, in the autumn diseases caused by pitta, in the summer diseases brought about by blood, and in the spring diseases caused by kapha.[116] Four compound medicines are described which respectively relieve disorders originating from kapha, blood (asra), pitta, and vāta (I.106–108).[117] Vāta, rakta, pitta, and kapha are mentioned

as the causes of diseases that may be cured by use of the amṛtataila (II.308–309). Disorders brought about by pitta, blood (asra), and vāta are also referred to (I.84–85).

Noteworthy technical terms, occurring in the Bower MS, are: anuprayoga (II.55), after-diet, i.e., the type of food to be taken after the ingestion of a particular drug;[118] avabhedaka (II.512), a discharging application, for example an errhine; avakṣārī (II.91), a difficult term, taken by Hoernle to mean a lixivium, but possibly a corrupt reading; āvalika, a term specifying a particular rasāyana that consists of finely powdered nāgabalā roots, stirred up in milk (II.753–758); āsu (I.55), regarded as identical with āsava; lāva rasa (II.1116);[119] pīṣima (II.578), a paste; sasyikā (II.400), a faultless female animal; unmardana (II.1053), a liniment.[120]

Nosological terms worthy of attention are: abhīlu (I.88, 100, 102);[121] akākolīna (III.62);[122] alāsaka (II.334 and 748);[123] ālūna (II.849, 874, 876);[124] apatantraka (II.316);[125] bhūtagraha (II.101);[126] īrṣyāśaṇḍha (II.350 and 360);[127] kacchaparoga (II.254);[128] kākavandhyā (III.47);[129] kaṇṭhaviḍālikā (II.42);[130] katrimālā (III.4);[131] khaḍa (II.359);[132] khallivāta (II.392);[133] koṭha (II.568);[134] kṣaya (II.86);[135] kuṣṭha (II.86);[136] nirvāhikā (II.427);[137] paillya (II.854 and 857);[138] parisravā (III.49);[139] pilla (II.863 and 882);[140] pilpa (I.100);[141] pratānaka (II.340 and 941);[142] pravāhikā (II.84, 157, 388, 429, 430, 943, 1090, 1094);[143] upagulma (II.254);[144] urodghāta (II.1099);[145] urovibhandha (II.33);[146] ūrdhvavāta (II.250);[147] ūruskambha or ūrūskambha (II.316, 334, 349, 357, 392);[148] vardhma (II.208, 230, 272, 317, 334, 644).[149]

Noteworthy items of the materia medica are:[150] abhīruparṇī (II.129);[151] abhītaparṇī (II.187);[152] agaja (I.25);[153] amarajā (II.81);[154] amblātaka (II.106);[155] candanasārivā (II.241);[156] cīḍā (II.856);[157] ḍembuka (II.837);[158] garmuḍī (II.887);[159] grāha (II.1100);[160] guḍikā (II.1035);[161] harita (I.111);[162] iṣṭakāpāthaka (III.65);[163] japā (II.959);[164] jhāmaka (I.90);[165] jiṅgaṇī (II.1073);[166] kāla (II.1103 and 1115);[167] keyūra (II.536);[168] kuśālaparṇī (II.796);[169] māruta (I.125); maṣi (II.1072);[170] mecīka (II.415);[171] naḍa (I.72);[172] naḍikā (II.292);[173] prācīnikā (II.879);[174] priyakasāla (II.397);[175] rāmataruṇī (II.901);[176] saurāṣṭra (II.57).[177]

In spite of its being used in a Buddhist community, the *Nāvanītaka* does contain formulae in which the flesh of various animals is prescribed as an ingredient.[178] Moreover, persons making a habit of the use of alcoholic drinks are not looked down upon.[179]

The *Mahāmāyūrī* is said to protect against a long series of grahas and diseases. The grahas mentioned are called Deva, Nāga, Asura, Maruta, Garuḍa, Gandharva, Kinnara, Mahoraga, Yakṣa, Rākṣasa, Preta, Piśāca, Bhūta, Kumbhāṇḍa,[180] Pūtana, Kaṭapūtana, and Skanda.[181]

Among the evils and diseases enumerated are unmāda, chāyāgraha,[182] apasmāra, Ostāraka,[183] Kaṅkhorda,[184] Okiraṇa,[185] Vetālas, a long series of fevers,[186] a number of other diseases, and a series of śūlas.

The author(s)

The authors of the texts comprising the Bower MS are unknown. The laśunakalpa of part I is unhesitatingly ascribed to Kāśirāja by G. Hāldār,[187] who also expressed as his opinion that the *Nāvanītaka* of the Bower MS represents an altered, Buddhist version of an original *Nāvanītakasaṃhitā* by Suśruta.[188]

Date

Hoernle concluded that characteristics of the script of the Bower MS point to the third quarter of the fourth century A.D. as the period in which the various portions must have been written.[189] Hoernle's dating is accepted by later authors, with the exception of J. Filliozat, in whose view it is preferable to adhere to a more approximate date, namely the fourth to sixth centuries.[190]

The period in which the texts composing the Bower MS may originally have been written is more difficult to determine. A number of details of the Bower MS establish beyond any doubt that its texts were copied from an already defective, not always easily legible, and therefore probably old MS.[191] Consequently, there must have been an interval between the writing of the autograph and the copying by the scribes of the Bower MS.

Some peculiarities of the MS may go back to the original author; part II, the *Nāvanītaka*, and part III contain glosses, indicated as such, which the author may have added to the extracts from earlier authoritative works of which his work is mainly composed.[192]

Hoernle adduced arguments pointing to a succession of copies between the autograph of the *Nāvanītaka* and its copy in the Bower MS. He was convinced to have discovered indications testifying to a rather considerable interval, perhaps two or three centuries, between the composition of the *Nāvanītaka* and the copy known to us. Although his reasoning in this matter is not cogent, his conclusions may well be valid.

Hoernle tried to prove that the original author of the *Nāvanītaka* was acquainted with the *Bhelasaṃhitā*, the *Carakasaṃhitā* before its revision and completion by Dṛḍhabala, and the *Suśrutasaṃhitā*, its Uttaratantra included.[193] His reasoning was based on formulae in the *Nāvanītaka* that also form part of these treatises, and the references to Bhela and Suśruta in parts I and II of the Bower MS.[194]

However, as already clearly pointed out by J. Jolly,[195] Hoernle's arguments are not conclusive. The way in which Suśruta is introduced in part I, and his relationship with the muni Kāśirāja, disagree with the beginning of the *Suśrutasaṃhitā*, which, moreover, does not contain a laśunakalpa, the subject of the conversation between Suśruta and Kāśirāja. The formulae, said to be derived from the *Suśrutasaṃhitā*,[196] are only distantly related to the parallels.[197] To be true, Bhela is credited with some formulae, which proves that he was already a well-known medical authority, but the majority of the passages of the *Nāvanītaka* that form part of the *Bhelasaṃhitā* are not attributed to him and may be drawn from the floating medical tradition or early treatises, now lost. Caraka and his predecessor, Agniveśa, are not referred to at all, which pleads against borrowing from the *Carakasaṃhitā*;[198] Ātreya, Agniveśa's teacher in the *Carakasaṃhitā*, is mentioned, but the formulae ascribed to him are absent from the *Carakasaṃhitā*.[199]

Consequently, it is preferable to suppose, as Jolly did, that the author of the *Nāvanītaka* drew upon the floating medical tradition and early treatises that have not been

preserved. However that may be, the medical parts of the Bower MS (I–III) constitute the earliest collections of recipes known. They give evidence of a long medical tradition, connected with numerous ancient authorities, and may be based on similar collections or other types of medical writings antedating the composition of the saṃhitās of Caraka, Suśruta and others.

Chapter 2
Bhelasaṃhitā

The *Bhelasaṃhitā*[1] is a comprehensive medical treatise chiefly concerned with internal medicine (kāyacikitsā). It is in many respects of the same type as the *Carakasaṃhitā* and may be said to belong, as the latter, to the school of Ātreya, although it also contains elements found in the *Suśrutasaṃhitā*, which gives it an unusual character.

The text of the *Bhelasaṃhitā* has been preserved in a single MS, incomplete and abounding with scribal errors, kept at the Mahārāja Serfoji's Sarasvatī Mahāl Library in Tanjore.[2] Several copies of this MS have been made in the course of time,[3] and three editions have appeared, based on the MS itself or its copies.[4]

A fragment of the *Bhelasaṃhitā* was discovered by H. Lüders[5] among the MSS brought from Central Asia by A. von Le Coq. This fragment consists of one page from a paper MS, found in Tuyoq,[6] that dates from about the ninth century; it contains the text of Nidānasthāna 8.5cd to Vimānasthāna 1.22ab. The readings of this fragment are at places to be preferred to those of the Tanjore MS.

Contents

The contents of the *Bhelasaṃhitā* are summarily listed in the middle of the Sūtrasthāna (17.7cd–9ab), and said to consist of a Sūtrasthāna in thirty chapters, a Nidāna-, Vimāna- and Śārīrasthāna in eight chapters,[7] an Indriyasthāna in twelve chapters, a Cikitsāsthāna in thirty, a Kalpasthāna in twelve, and, finally, a Siddhisthāna in twelve chapters. This table shows that the arrangement in sections (sthāna) and the number of chapters in each section are exactly the same as in the *Carakasaṃhitā*.

The order of the chapters, however, seems rather arbitrary at places, due to the disorderly condition of the MS.[8]

Preserved, completely or partly, are the following chapters: Sūtrasthāna 4–23 and 25–28; Nidānasthāna 2–8; Vimānasthāna 1 and 3–6; Śārīrasthāna 2–8; Indriyasthāna 1–12; Cikitsāsthāna 1–28; Kalpasthāna 1 and 3–9; Siddhisthāna 1–2 and 4–8. Completely or almost completely extant are Sūtrasthāna 5–19, 22–23 and 25–27; Nidānasthāna 3–5 and 8; Vimānasthāna 4; Śārīrasthāna 3–7; Indriyasthāna 4–12; Cikitsāsthāna 1–2, 8, 17, 25–26 and 28; Kalpasthāna 3–6 and 8; Siddhisthāna 4–7.

The *Bhelasaṃhitā* is more concise than the *Carakasaṃhitā* and uses simpler language. The verses are in śloka and anuṣṭubh metre and rather monotonous by presenting many repetitions of the same pattern.[9] Prose passages are found only in Śārīrasthāna 4–8.[10] The Sanskrit text is rather often grammatically incorrect.[11]

The chapters of the *Bhelasaṃhitā* usually begin in the same way as in the

Carakasaṃhitā, but they end differently, with the words ity āha bhagavān Ātreyaḥ. Unlike the *Caraka-* and *Suśrutasaṃhitā*, the work has not been revised by some later author. The preserved version, however, differs from an earlier text that once must have been current.

The treatise is called after Bhela or Bheḍa,[12] one of the six pupils of Ātreya Punarvasu.[13] Each of these pupils composed, according to the story related in the *Carakasaṃhitā*,[14] a medical treatise, based on the words of their teacher.[15]

The *Bhelasaṃhitā* is basically in the form of a dialogue between Ātreya as a teacher and Bhela as a student. The former is also designated as Punarvasu (Sū.25.5), Punarvasu Ātreya (Śā.4.2),[16] Cāndrabhāga (Sū.25.1), Cāndrabhāga Punarvasu (Sū.18.1),[17] and Kṛṣṇātreya (Sū.16.1; Śā.3.9; I.1.14).[18] However, Bhela is not the only person receiving instruction from Ātreya. In the chapter on the detection of poison in food (Sū. 18) it is the royal sage (rājarṣi) Nagnajit[19] who asks Ātreya questions during the latter's stay in the country of Gāndhāra. Gurdālu Bhekin[20] is desirous of information on medical topography (Sū.13), while Suśrotar Medhāvin,[21] who puts forward his own opinions on the treatment of disorders of the doṣas, is instructed by Ātreya in this subject (Sū.25).

In a way similar to what is found in the *Caraka-* and *Suśrutasaṃhitā*, the *Bhelasaṃhitā* presents accounts of discussions among sages on important topics. Subjects of these discussions, which are less elaborate and smaller in number than in the *Carakasaṃhitā*, are the number of the tastes (Sū.12) and embryology (Śā.4). The persons taking part in the deliberations on the tastes are Ātreya, Khaṇḍakāpya, Maitreya, and a number of other sages.[22] In both *Bhela-* and *Carakasaṃhitā* the meeting takes place in the Caitraratha forest. In contrast with the *Carakasaṃhitā*, the *Bhelasaṃhitā* does not attribute the views expounded to particular individuals. Nevertheless, as in the *Carakasaṃhitā*, seven different opinions are referred to, which are finally rejected by Ātreya, who proclaims the correct doctrine on the tastes.

The theories refuted by Ātreya claim that the tastes are one, two, three, four, five, six, or seven in number. The report in the *Bhelasaṃhitā* differs in some details from the one found in the *Carakasaṃhitā*.[23]

The discussion on the question which part of the embryo develops first is also found in the *Caraka-* and *Suśrutasaṃhitā*.[24] The account of the *Suśrutasaṃhitā* disagrees with the versions of *Bhela-* and *Carakasaṃhitā*, which are rather similar in the composition of the assembly[25] and the views expressed.[26]

Authorities mentioned on other occasions in the *Bhelasaṃhitā* are Bhadraśaunaka (Sū.9.7),[27] Bharadvāja (Śā.4.32; 6.1–2),[28] and Śaunaka (Sū.9.9; Śā.4.32;[29] 8.3[30]).

The Sūtrasthāna of the *Bhelasaṃhitā* is in its general outlines of the same character as the corresponding section of the *Carakasaṃhitā*, though distinctive features are present and the order of the chapters does not fully agree. Some chapters bear the same names as in the *Carakasaṃhitā*: Sū.6 (navegāndhāraṇīya; = Ca.Sū.7),[31] 7 (indriyopakramaṇīya; = 8), 8 (mātrāśitīya; = 5), 14 (cikitsāprābhṛtīya; = 16), 15 (tisraiṣaṇīya; = 11) 16 (vātakalākalīya; = 12), 17 (daśaprāṇāyatanīya; = 29), 19 (vidhiśoṇitīya; = 24), 20 (arthedaśamūlīya; = 30: arthedaśamahāmūlīya), 22 (sveda; = 14), 26 (aṣṭodarīya; = 19), 27 (annapānavidhīya; = 27: annapānavidhi).[32] Other chapters

correspond more or less to chapters of the *Carakasaṃhitā* with different names: Sū.5 (atyāśitīya) and Ca.Sū.5 (mātrāśitīya), Sū.9 (catuṣpādabhiṣagjitīya) and Ca.Sū.9 (khuḍḍākacatuṣpāda), 11 (samaśayanaparidhanīya) and Ca.Sū.28 (vividhāśitapītīya), 12 (ātreyakhaṇḍakāpyīya) and Ca.Sū.26 (ātreyabhadrakāpyīya), 25 (ṛtuvibhāgīya) and Ca.Sū.6 (tasyāśitīya). Chapters resembling Sū.10 (āmapradoṣīya), 13 (janapadavibhaktīya), 18 (annarakṣīya), and 23 (gāḍhapurīṣīya) are absent from the Sūtrasthāna of the *Carakasaṃhitā*.[33]

The Nidānasthāna describes nearly the same eight major diseases as the Nidāna section of the *Carakasaṃhitā*, in a slightly different order. However, one exception should be noticed: kāsa has taken the place of raktapitta, though the latter disorder belongs to the eight diseases dealt with first in the Cikitsāsthāna, while chapter twenty of that section is concerned with the treatment of kāsa. In this regard it is very remarkable that the Tuyoq fragment of Bhela, already referred to, reads raktapitta instead of kāsa in the last lines of chapter eight of the Nidānasthāna, where the diseases described in that section are listed. This made Lüders[34] infer that the Tuyoq fragment represents a more original state of the text than the Tanjore MS.

The Vimānasthāna of the *Bhelasaṃhitā* differs considerably from the same section of the *Carakasaṃhitā*. Two of its chapters bear titles which are identical: Vi.1 (rasavimāna; = Ca.Vi.1) and 5 (vyādhitarūpīya; = Ca.Vi.7). The subject matter of chapter three, the title of which has not been preserved, and of chapter four (rogaprakṛtiviniścaya) is related to that of chapter six (rogānīka) of Caraka's Vimānasthāna. Chapter six (ṛtuvimāna) is concerned with seasonal regimen (ṛtucaryā), described in chapter six (tasyāśitīya) of the Sūtrasthāna of the *Carakasaṃhitā*.[35]

Six of the eight chapters of the Śārīrasthāna bear names which are identical with or closely similar to those of corresponding chapters of the *Carakasaṃhitā*: 3 (asamānagotrīya; = Ca.Śā.2: atulyagotrīya), 4 (puruṣanicaya: = 5: puruṣavicaya), 5 (śarīranicaya; = 6: śarīravicaya), 6 (khuḍḍikā garbhāvakrāntiḥ; = 3), 7 (śarīrasaṃkhyā; = 7), and 8 (jātisūtrīya; = 8).

Some chapters of the Indriyasthāna find their counterparts in Caraka's Indriyasthāna: 4 (sadyomaraṇīya; = Ca.I.10), 5 (yasyaśyāvīya; = 9: yasyaśyāvanimittīya), 6 (pūrvarūpīya; = 5), 7 (indriyānīka; = 4),[36] 9 (gomayacūrṇa; = 12: gomayacūrṇīya), 11 (puṣpīya; = 2: puṣpitaka), and 12 (avākcitīya; = 8: avākśirasīya).

The Kalpasthāna is comparable to the same section of the *Carakasaṃhitā*, the order of the chapters excepted.

The Siddhisthāna has only one chapter with a title that is also found in the *Carakasaṃhitā*: 7 (phalamātrāsiddhi; = Ca.Si.11).

The section that differs most from the *Carakasaṃhitā* is the Cikitsāsthāna. Caraka's chapters on rasāyana and vājīkaraṇa (Ci.1–2) are absent. Chapters one to nine correspond to chapters three to ten of Caraka's Cikitsāsthāna, although their order is not completely identical; moreover, the *Bhelasaṃhitā* devotes two chapters to the treatment of fevers.

Chapters of the Cikitsāsthāna of the *Bhelasaṃhitā* that are similar to chapters of the *Carakasaṃhitā* are: 10 (atisāra; Ca.Ci.19), 11 (grahaṇī; Ca.Ci.15), 13 (udara; Ca.Ci.13), 14 (ūrustambha; Ca.Ci.27), 16 (arśas; Ca.Ci.14), 17 (śvayathu; Ca.Ci.12), 20

(kāsa; Ca.Ci.18), 24 (vātavyādhi; Ca.Ci.28), 27 (vraṇa; Ca.Ci.25), and 28 (pānātyaya; Ca.Ci.24).

A separate chapter on kṣatakṣīṇa (Ca.Ci.11) does not form part of the *Bhelasaṃhitā*, where this disorder is merely mentioned in passing (Ci.4.73; 24.29; Si.7.50; 8.23). A separate chapter on mūtrakṛcchra (Ci.12) is absent from the *Carakasaṃhitā*, which deals with this disorder in the trimarmīya chapter (Ci.26). The treatment of visarpa and vātaśoṇita is described in one chapter in the *Bhelasaṃhitā* Ci.15), in two chapters (Ci.21 and 29) in the *Carakasaṃhitā*. The *Carakasaṃhitā* does not present a separate chapter on udāvarta, as the *Bhelasaṃhitā* does (Ci.18); Caraka describes it in the trimarmīya chapter (Ci.26). The same applies to hṛdroga (Bhela Ci.19; Ca.Ci.26). The chapter of the *Bhelasaṃhitā* on śiroroga, karṇaroga, kaṇṭharoga and arocaka (Ci.21) has no parallel in the *Carakasaṃhitā*, which deals with these diseases in a number of chapters (Sū.17 and Si.9: śīroroga; Ci.26: karṇaroga; Sū.18.34–36: rohiṇī, the only kaṇṭharoga mentioned; Ci.26: arocaka). The *Bhelasaṃhitā* has a separate chapter on ajīrṇa (Ci.22), described in the chapter on grahaṇī (Ci.15) of the *Carakasaṃhitā*. Nidrā (sleep) and mūrchā (fainting) are the subjects of one chapter (Ci.23); the *Carakasaṃhitā* deals with sleep and its disorders, as well as with mūrchā, in the Sūtrasthāna (Sū.21 and 24). The subjects of the chapter on plīhan and halīmaka (Ci.25) are distributed over two chapters of the *Carakasaṃhitā* (Ci.13, the chapter on udara, and 16, the chapter on pāṇḍuroga).[37] Apatantraka, the subject of a separate chapter in the *Bhelasaṃhitā* (Ci. 26),[38] is discussed in the Siddhisthāna (9.14) of the *Carakasaṃhitā*.

Diseases discussed in the Cikitsāsthāna of the *Carakasaṃhitā* which are not dealt with in the corresponding section of the *Bhelasaṃhitā* are pāṇḍuroga (Ca.Ci. 16),[39] hikkā and śvāsa (Ca.Ci.17),[40] chardi (Ca.Ci.20),[41] tṛṣṇā (Ca.Ci.22),[42] viṣa (Ca.Ci.23),[43] and yonivyāpad (Ci.30).[44]

One of the chapters of the Sūtrasthāna (Sū.26: aṣṭodarīya) gives an idea of the contents of the *Bhelasaṃhitā* in its original, complete form. It enumerates, exactly like the corresponding chapter of the *Carakasaṃhitā* (Sū.19: aṣṭodarīya), the number of varieties of a long series of diseases.[45] Some diseases occurring in this list and not described in the preserved parts of the *Bhelasaṃhitā* are arbuda, bhagandara, ślīpada, upadaṃśa, and vidradhi.

The *Bhelasaṃhitā* is, as already mentioned, much more concise than the *Carakasaṃhitā*. The digressions on philosophical and religious subjects, which are characteristic of the *Carakasaṃhitā*, are absent from it. In spite of the large number of differences between the two works, the agreements between the treatises of Bhela and Caraka are close enough to warrant the conclusion that both belong to the Ātreya school of medicine.

Authors and works quoting from or referring to Bhela[46] are: Anantakumāra,[47] the *Ārogyāmṛtabindu*, Aruṇadatta,[48] the *Aṣṭāṅgahṛdayasaṃhitā*,[49] the *Aṣṭāṅgasaṃgraha*,[50] Bhāvamiśra,[51] the *Bhesajjamañjūsāsannaya*, the Bower MS,[52] the *Bṛhadrasarājasundara*,[53] the *Bṛhannighaṇṭuratnākara*, Cakrapāṇidatta,[54] Candranandana,[55] Candraṭa,[56] the *Carakasaṃhitā*,[57] Caube Kyākhūbadāsa's *Ajīrṇatimirabhāskara*, Ḍalhaṇa,[58] Dīpacandra's *Laṅghanapathyanirṇaya*, Gaṅgādhara,[59] Gayadāsa,[60] Gopāladāsa's *Cikitsāmṛta*, Gulrājśarmamiśra,[61] Harṣakīrti, Hemādri,[62] Jayaratna's *Jvaraparājaya*, Jejjaṭa,[63] the *Jvaracikitsita*, the *Jvarasamuccaya*,[64] the *Kairalī* commentary on the *Aṣṭāṅgahṛdayasaṃhitā*,[65] Kalyāṇa's *Bālatantra*,[66] Karandīkar's *Nidānadīpikā*,[67] Kāśīrāma,[68] the *Kāśyapasaṃhitā*, the *Lakṣmaṇotsava*, Lolimbarāja,[69] the *Mādhavacikitsā*,[70] Mānakavi,[71] the *Nāḍīcakra*,[72] Nīlamegha,[73] Niścalakara,[74] Nṛsiṃhakavi,[75] the *Rasayogasāgara*, the *Rasendrasambhava*, Rūpanayana,[76] the *Sahasrayoga*,[77] Śivadāsasena,[78] Soḍhala,[79] the *Tantrasāra*,[80] Tīsaṭa,[81] Ṭoḍara,[82] Trimalla,[83] Vācaspati,[84] Vāgbhaṭa,[85] Vijayarakṣita,[86] the *Vīrasiṃhāvaloka*,[87] the *Yogaratnākara*,[88] Yogendranātha,[89] and Yogīndranāthasena.[90] Bhela is also quoted by the unknown author of the interpolated portions of Niścalakara's *Ratnaprabhā*.[91]

The *Bhelasaṃhitā* was one of the sources of the *Ma'din al-Shifā'*.[92] Some scholars claim that Bhela's treatise was known to Ibn Sīnā.[93]

The Tibetan tradition is acquainted with Bhela as a medical authority under the name of Gziṅs-can.[94]

Special features

Suppression (dhāraṇa) of the urges (vega) of pitta and kapha is described (Sū.6.5);[95] the urges of hunger, thirst and heavy breathing due to exercise are left unmentioned.[96] The drinking of water before or during a meal is advised against (Sū.6.43–44). The rule concerning the use of triphalā with every meal differs from the prescription in the *Carakasaṃhitā* (Sū.8.19).[97] The main properties of the mahābhūtas are slightly different (Sū.9.15cd–16).[98] The three types of digestion are characterized by three types of eructation (udgāra; Sū.10.13–14ab). The list of disorders arising from corruption of the element rasa disagrees with Caraka's list.[99] The same applies, to a varying degree, to the lists of disorders arising from corruption of blood, fatty tissue, bone marrow, and semen.[100] The *Bhelasaṃhitā* adds a series of disorders due to abnormalities during pregnancy.[101] The disorders brought about by corruption of other constituents of the body, described by Caraka,[102] are omitted by Bhela.

Bhela permits the combination of milk and fish, with the exception of the fish called cilicima (Sū.12.7–8).[103] The janapadavibhaktīya chapter (Sū.13), concerned with feeding habits and diseases prevalent in particular regions, has no counterpart in a separate chapter of the *Carakasaṃhitā*.[104] Rainy periods are described as dangerous and having a high incidence of disease (janamāra; Sū.13.8–9). The names of fever in various animals are enumerated (Sū.13.11–13). The disease called batālikā, unknown from other sources, is described as a risky ailment, requiring urgent treatment; its main symptom is the appearance of boils (piṭakā) in the armpits, groins, and elsewhere (Sū.13.14cd–18).[105] Bhela's ten abodes of prāṇa (prāṇāyatana; Sū.17.1–2) disagree with Caraka's list (Sū.29.3).[106] The preparation called yavāgū is said to be of eight types, while wholesome articles of food are twelve in number (Sū.17.6). The description of the heart (Sū.20.5–6) resembles that found in the *Suśrutasaṃhitā* (Śā.4.32). Eight types of sudation (sveda) are described (Sū.22),[107] whereas Caraka has a larger number (Sū.14). Disorders brought about by obstipation (gāḍhapurīṣa) are described (Sū.23.1–5), as well as disorders which occur when bile affects one of the seven bodily elements (Sū.25.25cd–29ab). Two varieties of pṛṣṭharoga[108] are mentioned

(Sū.26.6); their names are upakṣārin and kṣārin (Sū.26.27ab).[109] Six varieties of kāca, liṅganāśa and timira are mentioned, distinguished by their colours (Sū.26.1 and 9).[110] Five causes of baldness (khālitya) and turning grey (palita) are distinguished (Sū.26.10–11).[111] Bhela acknowledges five varieties of arbuda (Sū.26.12),[112] mukharoga (Sū.26.13),[113] bhagandara (Sū.26.14),[114] and granthi (Sū.26.17),[115] four varieties of abhiṣyanda and adhimantha (Sū.26.18),[116] klaibya (Sū.26.19),[117] eye diseases (Sū.26.20),[118] upadaṃśa (Sū.26.21),[119] āsrāva (Sū.26.22),[120] pipāsā (Sū.26.23),[121] rohiṇikā (Sū.26.24),[122] and arman (Sū.26.25).[123] Three types of alajī are mentioned (Sū.26.28ab)[124] and also three types of vidradhi (Sū.26.28ab).[125]

Seven forms of sātmya are acknowledged (Sū.26.30cd–31ab), connected with one of the six tastes or all of them.[126] Seven types of ślīpada are referred to (Sū.26.7).[127] Twenty kinds of parasites (kṛmi) are enumerated (Sū.26.31cd–33).[128]

Two main categories of prameha are described: prakṛtiprabhava or sahaja, and sakṛta or janmottaraja (Ni.6.1–6).[129] A variety of unmāda caused by poison is absent, as it is from the *Carakasaṃhitā*.[130] The āgantuja type of unmāda does not include mental disorders caused by intense emotions, which are classified as mada, distinct from unmāda.[131] The Nidāna chapter on unmāda denies that insanity may be the result of possession by supernatural beings (7.10). The Nidāna chapter on epilepsy (apasmāra) relates that an attack comes about when one or more of the doṣas seize the ten vessels located above the heart, and obstruct the pathway of the mind (Ni.8.3 and 8).[132] A supernatural aetiology of apasmāra is rejected (Ni.8.13).[133]

An intensely burning digestive fire (tīkṣṇāgni) is attributed to the combined action of vāta and pitta (Vi.3.5).[134] Three types of vipāka are mentioned: madhura and amla during the digestive process, kaṭu at the end of it (Vi.3.12).[135] Ten dehanibandhanas are enumerated (Vi.3.17).[136] The chapter on the constitutions (prakṛti) mentions seven cosmic constituents, also called prakṛti, consisting of avyakta, mahat and the five mahābhūtas, to which svabhāva[137] and kāla, the five senses, the five kinds of objects of the senses, and five kinds of buddhi are added (Vi.4.10–11).[138]

The mental state of the parents during intercourse determines whether the child will be of a sāttvika, rājasa or tāmasa nature (Śā.3.17–20).[139]

The five types of pitta are described (Śā.4.3–9).[140] Two kinds of ālocakapitta are distinguished: cakṣurvaiśeṣika, engaged in gross visual perception, and buddhivaiśeṣika, located between the eyebrows and engaged in subtle visual perception (Śā.4.4–5).[141]

The description of the digestive fire (kāyāgni; jāṭharāgni) mentions a somamaṇḍala (lunar disc) in the centre of the navel, having a sūryamaṇḍala (solar disc) within it, while in the centre of the latter the digestive fire is located (Śā.4.11cd–12).[142] The size of the abdominal fire in various animals is said to depend on their body size (Śā.4.16–17ab).[143] The main task of a physician (kāyacikitsaka) consists of the treatment of disorders of the digestive fire (Śā.4.17cd–18ab).[144] The view that the heart is the first part of an embryo to develop is attributed to Parāśara (Śā.4.30).[145]

The view that epilepsy (apasmāra) is caused by supernatural beings is categorically rejected (Śā.4.29).[146] Rasa is considered to be the most important bodily constituent (Śā.4.33). Twelve seats of ojas and tejas (i.e., the fiery element) are enumerated (Śā.5.

1). Four classes (yoni) of living beings are distinguished: jarāyuja (placentals), aṇḍaja (oviparous), udbhijja (germinating), and svedaja (engendered by moisture) (Śā.5.2).[147] The embryo is thought to develop out of six elements (kāya),[148] namely the five mahābhūtas and rasa (Śā.5.10). The puruṣa is described as ṣaḍdhātu, i.e., composed of the five bhūtas, together with brahman, which is avyakta (Śā.5.11).[149] Seven varieties of divine (divya) and seven of human (mānuṣa) character types (kāya) are described (Śā.5.15–25).[150]

The six layers of the skin (Śā.7.1) are identical with those of the *Carakasaṃhitā*.[151] The osteological system shows some peculiarities (Śā.7.2).[152]

The list of viscera (koṣṭhāṅga; Śā.7.4) omits the pakvāśaya.[153] The list of pratyaṅgas (Śā.7.5) differs from Caraka's enumeration;[154] the items listed are: two gulphas (ankles),[155] two nitambas,[156] two jaṅghās (legs),[157] two piṇḍikās (calves), two ūrupiṇḍikās,[158] two parts called sphic,[159] two vṛṣaṇas (testicles), the śepha(s) (penis), two śaṅkhas (temples),[160] two vaṅkṣaṇas (groins), two kukundaras,[161] the basti (bladder),[162] the śīrṣa (head),[163] the udara (abdomen), two stanas (breasts), two bāhus (arms),[164] two aṃsakas,[165] the cubuka (chin), two oṣṭhas (lips), two dantaveṣṭas (gums), two sṛkkaṇīs (corners of the mouth), the tālu (palate), the galaśuṇḍikā (uvula), two karṇas (ears), two karṇaśaṣkulikās,[166] two gaṇḍas (cheeks), two akṣikūṭas,[167] four parts called akṣivartman (eyelids), and two akṣis (eyes). The transmigration of the ātman is discussed (Śā.7.7), as it is in the *Carakasaṃhitā*.[168] The human body is said to contain one añjali of mastiṣka and śukla.[169] The list of sixteen adhyātmadevatās, who preside over bodily and mental functions (Śā.7.8), disagrees with the corresponding list of the *Carakasaṃhitā*;[170] Bhela's list consists of: agni, pṛthivī, āpaḥ, ākāśa, vāyu,[171] vidyut,[172] Parjanya,[173] Indra, gandharva, Mṛtyu,[174] Āditya, Candramas,[175] Tvaṣṭar,[176] Viṣṇu,[177] Prajāpati, and Brahmā.

Religious elements in the treatment of fevers are mentioned (Ci.1.46–51; 2.39–41): paying homage to Vṛṣabhadhvaja, i.e., Śiva (1.46;[178] 2.40) and Bhūtādhipati (2.40), as well as the recitation of Vedic mantras (1.49); the exorcist (bhūtavaidya)[179] should employ the caṇḍakarman[180] characteristic of bhūtavidyā (1.50). A series of opinions on the aetiology of irregular fevers (viṣamajvara) is referred to, rejected by Bhela, who asserts that they are caused by saṃnipāta (2.1–5). These fevers are thought to corrupt bone marrow, osseous tissue and fatty tissue on the first day, muscular tissue and blood on the second day, kapha and vāta on the third day, pitta on the fourth day (Ci.2.6–7). Religious elements are mentioned again in the treatment of irregular fevers: paying homage to Acyuta, i.e., Viṣṇu (2.40), and Vṛṣabhadhvaja, i.e., Śiva (2.40), as well as measures belonging to the realm of bhūtavidyā (2.41).

The *Bhelasaṃhitā* records that yakṣman or śoṣa presents either six or eleven symptoms (Ci.4.7ab).[181] Nine incurable types of kuṣṭha, caused by one's karman, are described: puṇḍarīka, śvitra, ṛṣyajihva, kākaṇa, audumbara, śatāruṣka, carmakuṣṭha, ekakuṣṭha, and vaipādika, as well as nine curable types, caused by the doṣas: sidhma, vicarcikā, pāmā, dadru, kiṭika or kiṭiba, kapālakuṣṭha, sthūlāru, maṇḍala, and viṣaja (Ci.6.18cd—38).[182] The chapter on the treatment of prameha (Ci.7) refers to the following varieties: ikṣumeha,[183] udakameha (also called ambu- and vārimeha),[184] sāndrameha,[185] bhasmameha,[186] lavaṇameha,[187] sikatāmeha, śuklameha, kṣārameha,

śītameha, raktameha, nīlameha,[188] and hastimeha (also called gajameha).[189]

The description of the pathogenesis of insanity (unmāda) is remarkable; the *Bhelasaṃhitā* regards it as a process in which the doṣas, seated in the space between palate and skull, first affect the manas, then the citta,[190] and finally the buddhi (Ci. 8.10–12ab). Possession (bhūtonmāda) is mentioned,[191] but not given much attention to. The *Bhelasaṃhitā* seems to accept a division of labour between physicians and exorcists; the chapter on the treatment of insanity explicitly states that it is the task of physicians to prescribe drugs to patients with mental disorders, whereas the bhūtacikitsaka, the exorcist, should occupy himself with the religious treatment (Ci. 8.33).[192] Less serious mental disorders, which may eventually develop into insanity, are designated by the term mada (Ci.8.12cd–18).[193]

The chapter on the treatment of epilepsy (apasmāra) contains a second version, different from that in the Nidānasthāna, of the pathogenesis (saṃprāpti) of this disorder, described in the following way: when the mind (citta), due to various causes, is disturbed, the heart becomes desiccated; subsequently, vāta obstructs the bodily heat (ūṣman) and reaches the channel (nāḍī) which transports water; the person, suffering from this ailment, is oppressed by thirst, becomes confused, and develops epilepsy (Ci. 9.2–4). The involvement of bhūtas in the causation of epilepsy is not mentioned, which is no matter of surprise, because such an involvement has been rejected categorically on previous occasions.[194]

The āma variety of diarrhoea (atīsāra) is considered to belong to the kapha type of this disease (Ci.10.11).[195] Varieties of diarrhoea caused by fear (bhaya) and grief (śoka) are described (Ci.10.42–43).[196] The chapter on diarrhoea deals with viṣūcī, vilambikā and alasa (Ci.10.50–59).[197] It is also concerned with annavibhrama (Ci.10. 60),[198] and, curiously, with ardita (facial paresis), which is a vāta disease. A variety of ardita, caused by vāta obstructed by kapha (śleṣmopastabdhārdita), is separately discussed (Ci.10^{2}.10–12ab).[199]

The chapter on grahaṇī refers to the digestive fire as the basis of a person's life span (āyus) and the seat of the prāṇas (Ci.11.1); it enumerates the diseases to which grahaṇīdoṣa may give rise (Ci.11.9–11); the disorders of the digestive fire are also mentioned (Ci.11.12–1). The chapter on mūtrakṛcchra (Ci.12) probably also dealt with mūtrāghāta and aśmarī. Special types of udara described, apart from the doṣic varieties,[200] are dūṣyodara (Ci.13.10–15ab),[201] udakodara (Ci.13.15cd–18ab),[202] kṣatodara (Ci.13. 18cd–21ab),[203] baddhodara (Ci.13.21cd–25ab),[204] and plīhodara (Ci.13.25cd–26).[205] The *Bhelasaṃhitā* fails to make mention of the special types of visarpa, caused by a combination of two doṣas (Ci.15).[206]

The chapter on śopha (Ci.17) does not describe the numerous varieties mentioned in the *Carakasaṃhitā* (Sū.18), but restricts itself to four doṣic types and one āgantu type.[207] The pitta type of cough (pittakāsa; Ci.20.8–10) resembles the variety of pāṇḍuroga usually called kāmalā.[208]

The chapter on diseases of the head and ears (Ci.21) mentions the following diseases of the head: śaṅkhaka, sūryāvarta, anantavāta, ardhāvabheda, śiraḥkampa, and mūrdhaśvayathu (Ci.21.1–34);[209] diseases of the ears referred to are: bādhirya, karṇasrāva, karṇaśūla, karṇaśvayathu, karṇavāta, karṇavedanā, krimija karṇaroga,

and raktaja karṇaroga (Ci.21.51–77).[210] The same chapter is concerned with the treatment of arocaka (Ci.21.38cd–48) and with the origin, symptoms and treatment of galaśuṇḍī, a disease of the throat (Ci.21.49–50).[211] A separate chapter, preserved fragmentarily, is devoted to sleep and fainting. This chapter describes the physiology of sleep and fainting (Ci.23.1–8), excessive sleep, and insomnia (Ci.23.9–13);[212] it ends with some verses on mūrchā (Ci.23.14–16).[213]

The chapter on vāta diseases (Ci.24) is incomplete. It describes the treatment of corrupted vāta, located in various constituents of the body, refers to the eighty vāta diseases, and mentions specific varieties.[214] The chapter on plīhan and halīmaka (Ci. 25) distinguishes four doṣic types of plīhan, a disease already described as plīhodara in a previous chapter (Ci.13).[215]

A separate chapter (Ci.26) is devoted to apatantraka and its treatment.[216] The same chapter is concerned with the aetiology, symptoms and therapy of ardita, facial paresis (Ci.26.26cd–32), a vāta disease already dealt with in a preceding chapter (Ci.10).

The chapter on the treatment of vraṇa (Ci.27) mentions twelve vraṇadoṣas (Ci.27. 15)[217] and thirty-six ways of treatment (upakrama; Ci.27.16);[218] specialists in internal medicine (kāyacikitsaka) and surgery (śalyakṛt) are referred to (Ci.27.14, 16, 20).[219] The chapter on pānātyaya (Ci.28) describes four doṣic varieties[220] and one specific disorder, called pānājīrṇa (Ci.28.91cd–93ab).[221]

In contrast with the *Carakasaṃhitā*, the Kalpasthāna of the *Bhelasaṃhitā* does not enumerate the synonyms of the medicinal plants dealt with in this section.

The Siddhisthāna is differently arranged, when compared with the corresponding section of the *Carakasaṃhitā*. The first chapter is concerned with emetic and purgative treatments. Chapter two deals with drugs administered by way of the nostrils (nasya); four varieties are distinguished: avapīḍa, anuvāsa, dhūma, and pradhamana (Si.2.1).

Chapter four describes the symptoms and treatment of ten disorders (vyāpad) brought about by the improper administration of emetics and purgatives; these ten disorders are: parisrāva, ādhmāna, vibandha, gudaniḥsrava, hṛdroga, śūla, parikartikā, jīvādāna, śiroroga, and pravāhikā.[222] Chapter five, concerned with clysters, refers to divergent opinions on this subject and Bhela's own view. Chapters six and seven are on the same subject. Chapter seven mentions disagreeing views on the best drug for use in an enema; Bhela himself maintains an eclectic position (7.2–3).[223] Chapter eight is about the ten disorders caused by the injudicious use of enemas[224] and on specific enemas.

Some interesting names of disorders, mentioned incidentally, are: āḍhyavāta (Ci.14.19),[225] amlapitta (Ka.6.11),[226] kacchū (Sū.11.8),[227] khuḍavāta (Ci.14.19),[228] nirvāhikā (Ci.16.12; Si.7.45, 48, 50),[229] pārśvaroga (Sū.21.4 and 6), tapaḥsphoṭa (Sū.4.19),[230] and vipāṭikā (Sū.11.8).[231]

Many formulae and therapeutic rules find their counterparts in the *Carakasaṃhitā*; some recipes, absent there, recur, usually in more or less altered versions, in later treatises.[232]

Names of medicinal plants, mentioned in the *Bhelasaṃhitā*, but absent from the *Carakasaṃhitā*, are: ādaṇḍa (Ci.16.69),[233] āraṇyapippalī (Ci.21.30),[234] bhadrodumbarikā (Sū.4.12 and 15),[235] brahmabhūtikā (Sū.27.23), candrākaśāka (Sū.28.41),[236]

candravallī (Ci.26.21),[237] caṭaka (Sū.27.11),[238] gavādanī (Sū.4.5),[239] hemavidārikā (Ci.14.12), kadambapuṣpī (Ci.26.21),[240] kālamānaka (Sū.27.10),[241] kapila (Ci.24.23),[242] karṇamoṭa (Ci.27.2),[243] ketu (Sū.27.12),[244] keśamāriṇī (Ci.9.6),[245] keśavatī (Ci.26.21), kūlaka (Sū.27.12),[246] kuliśa (Sū.4.13),[247] kumārī (Ci.24.25), kurūṭikā (Sū.28.32),[248] kuṭiñjaka (Sū.28.42), mācipattra (Ci.2.31), mahānimba (Ci.16.70),[249] mahāvallī (Ci.26.17),[250] modakī (Ci.24.27),[251] nikuñcikā (Si.7.7),[252] nīrakadambaka (Ci.24.25),[253] pāribhadraka (Ci.8.24; 28.86),[254] puṣkaravartaka (Sū.28.31),[255] pūtanā (Ci.2.35; 9.6),[256] rājatṛṇa (Si.7.14),[257] rubūka (Ci.21.68; Si.4.32),[258] rūpasthā (Ci.9.6), samudrāntā (Ci.15.22; 27.5 and 8),[259] śītikā (Sū.28.32), śukānanā (Ci.6.68; Si.1.16),[260] śukanāsā (Ci.26.17; 27.3),[261] sūkarī (Ci.2.35),[262] suvarṇapuṣpī (Sū.4.4),[263] svādukaṇṭaka (Vi.5.6),[264] takkola (Ci.24.8),[265] turaṅgī (Si.7.14),[266] vadhūṭikā (Si.8.41),[267] and veṇucchattrāka[268] (Sū.28.26).[269]

Some plant names which are characteristic of the *Carakasaṃhitā* are also found in the *Bhelasaṃhitā*: avākpuṣpī (Ci.16.40), bhaṇḍī (Si.4.22), cāraṭī (Ci.2.35), jayā (Ci.2.34), kāyasthā (Ci.2.34; 24.26), kuñcikā (Ci.13.27), nalikā (Ci.24.8), parṇāsa (Sū.27.10), pīluparṇī (Ci.14.13), poṭagala (Ka.3.7), rohiṣa (Ci.24.24; Ka.4.2; 5.2; 9.1; Si.7.14), śilodbheda (Ci.10.31), śuṣkaśāka (Sū.10.1), svarṇayūthikā (Ci.16.79; 27.8), and vīrā (Ci.2.34; 24.25).

The author

No particulars are known about Bhela.

A number of peculiarities of the vegetable materia medica prompted R.S. Singh to assert that Bhela was a resident of Western India.[270] Others are of the opinion that Bhela belonged to the region of Gandhāra,[271] because that country is mentioned in his treatise.[272]

Date

Bhela is often quoted by later authors, but, as only a minority among the quotations can be traced in the preserved text of the *Bhelasaṃhitā*,[273] the majority are unsuitable for the purpose of elucidating its chronological position.

Ananta's *Yogaratnasamuccaya*, a treatise that is probably posterior to the fifteenth century, contains a rather large number of quotations from Bhela; some of these, or related verses, are found in the Tanjore MS.[274]

Narahari gives, in his *Vāgbhaṭamaṇḍana*, a quotation found in Bhela's Vimānasthāna.[275]

Niścalakara's *Ratnaprabhā* ascribes a number of prescriptions of the *Cakradatta* to Bhela.[276] Two of these form part of the text of the *Bhelasaṃhitā*.[277] Eight quotations from Bhela in the *Ratnaprabhā* are found in the *Bhelasaṃhitā*.[278]

Soḍhala's *Gadanigraha* ascribes the formula of dhānvantaraghṛta[279] to Bhela; this recipe itself is not found in the Tanjore MS of the *Bhelasaṃhitā*, but is referred to twice (Ci.6.50 and 15.39), which proves that it formed part of the complete text, still known to Soḍhala about A.D. 1200.[280]

One of Aruṇadatta's quotations[281] establishes that the *Bhelasaṃhitā* was known in the twelfth century. Two or three citations from Bhela's work in a monograph on fevers by an unknown author, the *Jvarasamuccaya*, are said to agree with the text of the Tanjore MS, while the majority are not found in the latter.[282] The oldest MS of this *Jvarasamuccaya* dates from A.D. 924,[283] which establishes that the verses ascribed to Bhela are taken from a version of his work that antedates the tenth century.

Tīsaṭa's *Cikitsākalikā* contains a recipe ascribed to Bhela (248: hiṅgupañcaka) that, although differently worded, is very close to the formula of the same name in the *Bhelasaṃhitā* (Ci.19.10), which indicates that the text consulted by Tīsaṭa in the tenth century was not altogether different from the one known to us.

Ṭoḍara's *Āyurvedasaukhya* contains a quotation that is partly found in the *Bhelasaṃhitā*.[284]

Vijayarakṣita's quotation is very close to a verse actually found in the *Bhelasaṃhitā*.[285]

The Bower MS describes three gruels (yavāgū) attributed to Bhela.[286] Eleven more prescriptions found in it[287] form also part of the text of the *Bhelasaṃhitā*, without being associated with his name in the Bower MS. These recipes need not be taken from the *Bhelasaṃhitā*, as A.F.R. Hoernle claimed,[288] who was convinced that the *Nāvanītaka* of the Bower MS is posterior to the *Bhelasaṃhitā*. They may well be from the floating medical tradition or from early treaties now lost.[289]

The attribution of some gruels to Bhela in the Bower MS indicates that he was regarded as a medical authority in early times, as is also apparent from the references to him as one of the six pupils of Punarvasu Ātreya who wrote their own textbooks on internal medicine (kāyacikitsā).[290] The *Bhelasaṃhitā* itself shows unequivocally that Bhela belongs to the tradition connected with Ātreya and his special branch of medicine. A close study of the text of Bhela's treatise, as known to us, betrays, however, that it repeatedly departs from the tradition embodied in the *Carakasaṃhitā*[291] and even presents a not inconsiderable number of affinities with the teachings of the school of Dhanvantari, illustrated by the *Suśrutasaṃhitā*.[292] A smaller number of details show similarities with the *Kāśyapasaṃhitā*.[293]

Data proving that a *Bhelasaṃhitā* related to the treatise in the Tanjore MS was known in the period of Vāgbhaṭa are found in the *Aṣṭāṅgahṛdayasaṃhitā* and *Aṣṭāṅgasaṃgraha*. The *Aṣṭāṅgahṛdayasaṃhitā* refers to Bhela's formula of sahacarataila,[294] the *Aṣṭāṅgasaṃgraha* to Bhela's kṣārāgada[295] and sahacarataila.[296]

A collection of formulae called *Jīvakapustaka* contains a formula (Nr. 8), also found in the *Bhelasaṃhitā* (Ci.5.17–19). Bhela may be mentioned in an old Khotanese fragment of a Buddhist text.[297]

References to Bhela in other works that conflict with what is found in the text of the *Bhelasaṃhitā* are also known. Bhela's opinion on the application of clysters (basti) in children, as recorded in the *Kāśyapasaṃhitā*, disagrees with the view on this subject laid down in the *Bhelasaṃhitā*.[298]

The evidence collected from the references to and quotations from Bhela makes clear that the treatise fragmentarily preserved in the Tanjore MS is not completely identical with the work quoted.[299] The chronological position of the preserved *Bhelasaṃ-*

hitā can for that reason be determined only by means of internal evidence and the date of completion of its MS, about A.D. 1650.

The structure of the *Bhelasaṃhitā*, in particular the similarity of this structure to that of the *Carakasaṃhitā*, the partial identity of the titles of the chapters and their contents, the contents of the Kalpasthāna, etc., make it seem plausible to assume that the work is later than the *Carakasaṃhitā* after its redaction by Dṛḍhabala or of about the same date. The affinities with the *Suśrutasaṃhitā* make it improbable that Bhela's treatise is much earlier. Influences from the side of Vāgbhaṭa's works or Mādhava's *Rugviniścaya* are absent. The period between A.D. 400 and 750 may therefore have witnessed the development of an earlier text into the treatise known from the Tanjore MS.

Clues to the period in which the work acquired its present shape were collected by P.V. Sharma.[300] Changes in matters pertaining to religion are perceptible when the *Caraka-* and *Bhelasaṃhitā* are compared. Both Śaivism and Vaiṣṇavism are represented in the latter,[301] whereas the former shows an emphasis on Vaiṣṇavism. Practices that became current in the Gupta age are alluded to; examples are Śiva worship on a cremation ground (Ci.2.40) and the practice of caṇḍakarman (Ci.1.50). Several types of ascetics are mentioned: kaṣāyavastra, muṇḍa, jaṭila, and nagnaka (I.8.14) and mlecchas are referred to (Sū.5.25). Tantric influences are also detectable: the heart is compared with a wheel (cakra) on which the prāṇas are fixed (Sū.20.4), a solar and lunar disc are thought to be located in the umbilical region (Śā.4.11–12), etc.

The evidence taken together points to a period after Vāgbhaṭa, about the seventh century or somewhat later, as the age that saw the completion of the text of the *Bhelasaṃhitā* represented by the Tanjore MS.[302]

Chapter 3
Kāśyapasaṃhitā

The *Kāśyapasaṃhitā*[1] is the only specialized textbook on kaumārabhṛtya that has been preserved. Two MSS of this work are known. The first of these was discovered by Haraprasād Śāstrī in Kāṭhmāṇḍū in 1898;[2] the MS consists of only thirty-eight palm leaves and contains a very small portion of the text.[3] The second MS, much more extensive, although incomplete and damaged as well, was acquired by Paṇḍit Hemrāj Śarmā.[4] The editions of the *Kāśyapasaṃhitā* are based on this second MS.[5]

Contents

The *Kāśyapasaṃhitā* is composed in the form of a dialogue between Kaśyapa as the teacher and Vṛddhajīvaka as his pupil. Some of the colophons refer to the treatise as *Vṛddhajīvakīya Kaumārabhṛtya* (92 and 146), *Vṛddhajīvakīya Tantra* (227), *Vṛddhakāśyapīya Saṃhitā* (324), and *Bhārgavīya Saṃhitā* (331).[6]

A story about the transmission of the teachings embodied in the *Kāśyapasaṃhitā* is told in the last chapter of the Kalpasthāna (226–227): "The great sage Kaśyapa composed, for the benefit of mankind and by order of Brahmā, by the force of his austerities and seeing it with the eye of knowledge, a treatise, which was bestowed on the sages. Jīvaka, the son of Ṛcīka,[7] free from ignorance and pure, the first to understand this great treatise, made a condensed version of it. The sages, however, disapproved of the words of this child (i.e., Jīvaka). Thereupon the pure Jīvaka, only five years old, plunged into the Gaṅgā at Kanakhala,[8] to emerge again in a moment, full of wrinkles and with grey hair. Astonished on witnessing this miracle, the sages gave him the name of Vṛddhajīvaka, accepted his treatise, and regarded him as the foremost among the physicians. When this treatise got lost during the Kali age, the yakṣa Anāyāsa[9] preserved it, intent on the welfare of mankind. Afterwards, the learned Vātsya, who was of Vṛddhajīvaka's lineage, obtained this great treatise, after propitiating Anāyāsa. After a complete study of the three Vedas, the *Ṛg-*, *Yajur-* and *Sāmaveda*, together with their auxiliary works (vedāṅga), and after appeasing Śiva, Kaśyapa and the yakṣas with austerities and devotions, he revised the treatise composed by Vṛddhajīvaka for the prosperity of mankind, in order to acquire merit, fame, and happiness."

This story indicates that the text of the *Kāśyapasaṃhitā* is actually the revision by Vātsya of an earlier treatise. The attribution of the *Kāśyapasaṃhitā* to Kaśyapa does not explain its name, since *Kaśyapasaṃhitā* would have been more in conformity with usage.[10] The Kaśyapa of the *Kāśyapasaṃhitā* is sometimes designated as Mārīca (183 and 202)[11] and Prajāpati (39; 79; 93; 123; 174; 185; 286);[12] he is once referred to as

Kāśirāja (363). Vṛddhajīvaka is referred to as Bhārgava (74; 75; 117; 214; 227; 240; 331) and, rather often, as Vṛddha, Sthavira or Sthavirajīvaka. The name Vṛddhajīvaka and the story about him refer to kaumārabhṛtya as the special subject of the treatise, because the first one to grasp this branch of āyurveda is depicted as a wise child. The name recalls that of the paediatrician Jīvaka, quoted in the Bower MS, and the Jīvaka of Buddhist literature.

The *Kāśyapasaṃhitā* mentions, apart from the persons already referred to, a number of ancient sages and authorities who for the greater part are met with in other medical treatises. Their names are: Ātreya Punarvasu (147), Bhārgava Pramati (39), Bhela (147), Dāruvāha (33 and 39), Gārgya (147), Hiraṇyākṣa (39), Kāṅkāyana (39), Kautsa (152), Kṛṣṇa Bhāradvāja (39), Māṭhara (147), Pārāśarya (147 and 152), Vaideha Janaka (153), Vaideha Nimi (39), Vāryovida (39, 153, 324), and Vṛddhakāśyapa (153).

Most of these authorities appear on the scene on the occasion of discussions touching on controversial subjects. These discussions, resembling those recorded in the *Bhela-*, *Caraka-* and *Suśrutasaṃhitā*, are three in number. The first one (39; Sū.27.3) is about the numbers of diseases to be distinguished. The following views are enunciated: all diseases, being associated with pain, are one (Bhārgava Pramati);[13] diseases are twofold: nija and āgantu (Vāryovida);[14] diseases are threefold: curable, amenable to palliative treatment, and incurable (Kāṅkāyana);[15] diseases are fourfold: āgantu, and caused by one of the three doṣas (Kṛṣṇa Bhāradvāja);[16] diseases are fivefold: āgantu, caused by one of the three doṣas, or caused by all three doṣas together (the royal sage Dāruvāha);[17] diseases are sixfold, because foods and drinks have six tastes;[18] diseases are of seven kinds: caused by one of the three doṣas, by a combination of two doṣas, or by all three together (Hiraṇyākṣa);[19] diseases are of eight types: caused by one, two, or three doṣas, and of āgantu origin (Vaideha Nimi);[20] diseases are of innumerable varieties, because the doṣas involved may be balanced, present in excess, or deficient (Vṛddhajīvaka).[21] Kaśyapa declares, as Vāryovida did, that diseases are either nija or āgantu, but adding that both categories consist of many varieties.

The second discussion, fragmentarily preserved, is concerned with the treatment of children by means of enemas (146–147; Si.1). Gārgya[22] advances that an enema (basti) may be applied in all children, even immediately after birth; Māṭhara,[23] disagreeing, holds that an enema should not be administered in the first month after birth; Ātreya Punarvasu declares that the first three months of life are unsuitable; the view that one year should have elapsed is expressed by an authority whose name has not been preserved; Pārāśarya[24] is convinced that a child may profit from a basti when it is three years old; Bhela moves this limit to six years. Kaśyapa decides that enemas are applicable when a child is no longer breastfed and has become used to solid food.

The third discussion has the treatment with emetics for its subject (152–153; Si.3). Kautsa[25] distinguishes three grades in this treatment; Pārāśarya, apparently agreeing with him, adds that these three grades ought to be related to a patient's strength. The diet after the administration of an emetic is also dealt with; Vṛddhakāśyapa,[26] Vaideha Janaka,[27] and others, whose names are not extant, give their opinion. Some related subjects are touched upon by Vāryovida and Vātsya.[28] Kaśyapa, appearing again at the end, expounds his thoughts, which should be regarded as final.

Dāruvāha (33;Sū.25.3–4) is mentioned once as the one who urges Vṛddhajīvaka on to put questions to Kaśyapa on the diagnosis of young children who are not yet able to speak.

Someone, several times addressed as king in the *Kāśyapasaṃhitā*,[29] and apparently desirous of instruction by Kaśyapa, may be Vāryovida,[30] who is called a king in some verses dealing with drug treatment in children.[31]

The structure of the *Kāśyapasaṃhitā* resembles that of the *Caraka-* and *Bhelasaṃhitā*. The chapters begin with an announcement of Kaśyapa, who mentions the title of the chapter that he is going to expound. In many cases, it is Vṛddhajīvaka who puts questions to Kaśyapa, who, surrounded by other sages,[32] gives his answers.

The internal arrangement of the *Kāśyapasaṃhitā* was originally the same as that of the *Caraka-* and *Bhelasaṃhitā* in containing a total of 120 chapters, distributed over eight sections with respectively thirty (Sūtrasthāna), eight (Nidānasthāna), eight (Vimānasthāna), eight (Śārīrasthāna), twelve (Indriyasthāna), thirty (Cikitsitasthāna), twelve (Siddhisthāna), and twelve (Kalpasthāna) chapters. The order of the last two sections is peculiar to the *Kāśyapasaṃhitā*, for the Kalpasthāna precedes the Siddhisthāna in both *Caraka-* and *Bhelasaṃhitā*. The verses providing this information on the sections and number of chapters of each section, found in the last chapter of the Kalpasthāna,[33] add that the supplementary section, the Khilasthāna, which distinguishes the *Kāśyapasaṃhitā* from the *Caraka-* and *Bhelasaṃhitā*, originally consisted of eighty chapters.

Out of the total number of 200 chapters, the Khilasthāna included, seventy-eight have been preserved, partially (forty-seven chapters) or completely (thirty-one chapters): eleven from the Sūtrasthāna, two from the Vimānasthāna, five from the Śārīrasthāna, one from the Indriyasthāna, eighteen from the Cikitsitasthāna, eight from the Siddhisthāna, nine from the Kalpasthāna, and twenty-four from the Khilasthāna. The Nidānasthāna is completely absent from the MS.[34]

The *Kāśyapasaṃhitā* is written in a mixture of verse and prose. Verse prevails over prose in general; the Vimāna- and Śārīrasthāna are, as in the *Carakasaṃhitā*, mainly in prose, as are some stray chapters, such as the Revatīkalpa and chapter fifteen of the Khilasthāna; the single extant chapter from the Indriyasthāna is in verse.

The work has many elements in common with the saṃhitās of Caraka and Bhela, but differs in several respects, being chiefly concerned with kaumārabhṛtya, which is, accordingly, said to be the foremost among the eight divisions of āyurveda (61).[35]

The extant chapters of the Sūtrasthāna describe the treatment with linctuses (lehādhyāya; 1–6);[36] disorders associated with breast-feeding (Sū.19: kṣīrotpatti; 6–10);[37] dentition (Sū.20: dantajanmikādhyāya; 10–14);[38] piercing of the earlobes (Sū.21: cūḍākaraṇīyādhyāya; 14–16);[39] treatment with oils (Sū.22: sneha; 16–24);[40] sudation (Sū.23: sveda; 24–29);[41] arrangements concerning equipment (Sū.24: upakalpanīya; 29–33);[42] diagnosis in young children not yet able to speak (Sū.25: vedanādhyāya; 33–37);[43] the four pillars of treatment (Sū.26: cikitsāsampadīya; 37–39);[44] the classification of diseases and the enumeration of the disorders caused by vāta, pitta, kapha, and blood (Sū.27: rogādhyāya; 39–47);[45] auspicious and inauspicious bodily

marks,[46] and the sattva typology (Sū.28: lakṣaṇādhyāya; 47–54).[47]

The extant chapters of the Vimānasthāna are about an imperfectly known subject[48] and about the initiation of students (śiṣyopakramaṇīya; 57–65).[49]

The extant chapters of the Śārīrasthāna are concerned with anatomy, elements of Sāṃkhya philosophy, and other subjects (65–69);[50] pregnancy (asamānagotrīya; 69–72);[51] embryology (garbhāvakrānti; 72–74);[52] anatomy (śarīravicaya; 75–79);[53] procreation (jātisūtrīya; 79–88).[54]

The subjects dealt with in the single extant chapter of the Indriyasthāna (oṣadhabheṣajīya; 89–92) are partly the same as those found in some chapters of Caraka's Indriyasthāna,[55] partly absent from the latter.[56]

The extant chapters of the Cikitsitasthāna deal with fevers (jvara; 93–95);[57] diseases of pregnant women (garbhiṇīcikitsita; 95–97);[58] puerperal diseases (duṣprajātācikitsita; 97–98); disorders caused by bālagrahas (98–105); plīhan and halīmaka (105–106);[59] udāvarta (106–108);[60] rājayakṣman (109–111);[61] gulma (111–115);[62] kuṣṭha (115–119);[63] mūtrakṛcchra (120–122);[64] wounds and ulcers (dvivraṇīya; 123–130);[65] pratiśyāya (130–132);[66] urоghāta (132–133); śopha (133–134);[67] kṛmi (134–135);[68] madātyaya (135–139);[69] phakka (139–142); disorders in wet-nurses (dhātrīcikitsita; 142–146).[70]

The extant chapters of the Siddhisthāna[71] are called: (1) rājaputrīyā (146–149; on the application of enemas in children); (2) trilakṣaṇā (149–152; on the right and wrong ways of administering pañcakarman);[72] (3) vamanavirecanīyā (152–159; on emesis and purgation);[73] (4) nastaḥkarmīyā (159–161; on nasal therapy);[74] (5) kriyāsiddhi (162–163; rules for patients during treatment);[75] (6) bastikarmīyā (164–165; on wrong ways of administering enemas);[76] (7) pañcakarmīyā (165–168; on indications and contra-indications);[77] (8) maṅgalasiddhi (168–169; recipes for efficient enemas).

The Kalpasthāna differs considerably from the corresponding section of the *Caraka-* and *Bhelasaṃhitā*. The nine chapters which are extant are concerned with: (1) fumigations (dhūpa; 170–174); (2) laśunakalpa (174–181); (3) kaṭutailakalpa (181–183); (4) ṣaṭkalpa (183–185); (5) śatapuṣpāśatāvarīkalpa (185–187); (6) revatīkalpa (187–202); (7) bhojanakalpa (202–213); (8) viśeṣakalpa (213–225); (9) saṃhitākalpa (225–227).

The Khilasthāna[78] is of a mixed character; it contains chapters on the aetiology, symptomatology and treatment, or treatment only, of particular diseases, some of which have already been dealt with in previous chapters; chapters on subjects with a more general bearing are also found in it.

The Khilasthāna may be due to Vātsya, who added it as a supplement to the *Vṛddhajīvakīyatantra* after revising the latter.[79] It has been given the same structure as the preceding sections. The supplementary character appears undisguisedly in the first verses of its first chapter, where Vṛddhajīvaka approaches Kaśyapa and asks him to elucidate the causes of irregular fevers, reminding him that he failed to discuss this subject in the chapter on the treatment of fevers.[80]

The subjects of the extant chapters of the Khilasthāna are: (1) irregular fevers (viṣamajvaranirdeśīya; 227–234); (2) the treatment of fevers in general (viśeṣanirdeśīya; 234–240); (3) principles of treatment (bhaiṣajyopakramaṇīya; 240–249); (4) soups (yūṣanirdeśīya; 249–255); (5) diet and related subjects (bhojyopakramaṇīya; 255–260); (6) the doṣas, the tastes, and their combinations (rasadoṣavibhāgīya; 261–268); (7) purificatory treatments (saṃśuddhiviśeṣaṇīya; 268–277); (8) the treatment with enemas (bastiviśeṣaṇīya; 277–286); (9) the aetiology, symptomatology and treatment of raktagulma (raktagulmaviniścaya; 286–292); (10) the treatment of diseases in pregnant women (antarvatnīcikitsita; 293–304); (11) the treatment of puerperal diseases (sūtikopakramaṇīya; (304–316); (12) the treatment of infants (jātakarmottara; 316–319); (13) the aetiology, symptomatology and treatment of kukkuṇaka (kukkuṇakacikitsita; 319–324); (14) the aetiology, symptomatology and treatment of visarpa (visarpacikitsita; 324–331); (15) the aetiology, symptomatology and treatment of carmadala (carmadalacikitsita; 331–335); (16) the aetiology, symptomatology and treatment of amlapitta (amlapittacikitsita; 335–339); (17) the aetiology, symptomatology and treatment of swellings (śothacikitsita; 339–345); (18) the aetiology, symptomatology and treatment of śūla (śūlacikitsita; 345–349); (19) supplementary prescriptions concerning the treatment of the eight types of fever (aṣṭajavaracikitsitottara; 349–353); (21) treatments with honey (madhuviśeṣaṇīya; 353–354); (22) the medicinal properties of milk (kṣīraguṇaviśeṣīya; 354–356); (23) the medicinal properties of water (pānīyaguṇaviśeṣīya; 356–359); (24) the medicinal properties of meat (māṃsaguṇaviśeṣīya; 359–363); (25) the feeding habits of the inhabitants of various countries (deśasātmya; 363–364).

The text of the *Kāśyapasaṃhitā* repeatedly refers to its various sections and subjects dealt with there;[81] the name of a particular chapter is rarely mentioned.[82]

The author of the treatise or its revisor, Vātsya, was well acquainted with differences of opinion among medical authorities, as shown, apart from the discussions already described, by a rather large number of passages where dissentient points of view are taken into consideration or merely registered.[83] On some occasions Kaśyapa's own opinion, always regarded as decisive, is clearly stated.[84] On one of these, he appears to reject a view expressed in the *Carakasaṃhitā*.[85]

Medical schools specializing in other branches of medicine than kaumārabhṛtya are referred to.[86]

Quotations[87]

An anonymous monograph on fevers, called *Jvarasamuccaya*, contains a considerable number of verses, attributed to Kāśyapa, which form part of the *Kāśyapasaṃhitā*.[88] The corresponding verses are not only found in those sections of the *Kāśyapasaṃhitā* which are old or at least based on an older version, but also in the Khilasthāna. The stanzas that cannot be traced can without much hesitation be supposed to belong to Vātsya's revised version of the *Kāśyapasaṃhitā*.

Some verses, quoted from the *Bhālukitantra* in the *Madhukośa* ad *Mādhavanidāna* 2.18–23 are found in the viśeṣakalpādhyāya of the *Kāśyapasaṃhitā*.[89] The verses describing the two saṃnipāta fevers called vidhu and phalgu (viśeṣakalpa 28cd–31ab) recur, without mention of a source, in Vaṅgasena's *Cikitsāsārasaṃgraha* (jvara 354–356) and Bhāvamiśra's *Bhāvaprakāśa* (cikitsā 1.459–461). Another stanza, said to be

from Bhāluki in the *Ātaṅkadarpaṇa* ad *Mādhavanidāna* 2.24, forms part of the viśeṣakalpa chapter as well (218).[90]

The recipes of the pills against children's diseases, attributed to Kāśyapa in the Bower MS (II.1010–1040), are supposed to have been taken from Khilasthāna 17 and 18 of the *Kāśyapasaṃhitā* by V.N. Pandey and A. Pandey,[91] but cannot be traced in these chapters.

The *Kāśyapasaṃhitā* is quoted in Dharmadatta's *Tridoṣasaṃgraha*.

R.C. Majundar's claim[92] that the *Kāśyapasaṃhitā* is quoted in the Bower MS and contains many quotations, not found elsewhere, from the most ancient works of the Ātreya school, is entirely unfounded.

Special features[93]

The rasa derived from the food is, in a pregnant woman, divided into three portions, which nourish the unborn child, the mother's body and the mother's breasts (2; 287: Khila 9.20).[94] A child whose own mother has died and who is being cared for by a stepmother is called kalyāṇamātṛka (4). Disorders of the breastmilk are attributed to demonic influences, in conjunction with the doṣas (6; Sū.19).[95] The group of drugs which purify the breastmilk (kṣīraviśodhana; 7) is closely related to the same group of the *Carakasaṃhitā* (Śā.8.56). Foreign bodies in the food or drink of the mother or wet-nurse are called vajra[96] and give rise to a disease called stanakīlaka (9–10).[97] Mothers whose fine breasts are injured by the jealous glances of other women are advised to take recourse to Tantric practices (10: tantrāvacāraṇa).

Chapter twenty of the Sūtrasthāna (10–14)[98] describes the human set of teeth, both milk teeth and second teeth; the central incisors (rājadanta), lateral incisors (basta), canine teeth (daṃṣṭrā), and (pre)molars (hānavya) are separately mentioned.[99] The same chapter describes normal and abnormal teething. Particular rituals should be performed when abnormalities are observed.[100] Four characteristics of the set of teeth are said to have an auspicious or inauspicious meaning.[101] Piercing of the ears (karṇavedha) is described (15; Sū.21).[102]

The effects of the four fatty substances on the doṣas (16–17; Sū.22) differ to a certain extent from the views expressed in the *Caraka-* and *Suśrutasaṃhitā*;[103] the anupānas to be used after the ingestion of a fatty substance are the same as those mentioned in the *Carakasaṃhitā*.[104]

Eight types of sudation (sveda) are described (26–29; Sū.23): hastasveda, pradeha, nāḍīsveda, prastarasveda, saṃkarasveda, upanāha, avagāha, and pariṣeka.[105] The term trikaṭhoraka,[106] employed in the verses on saṃkarasveda (28), may refer to the sand (sikatā), dust (pāṃśu) and pebbles (pāṣāṇa) of Caraka's piṇḍasveda (Sū.14.26), though the term itself does not occur in its description.

Four varieties of ajīrṇa are distinguished: āma, vidagdha, saśleṣman and rasaśeṣa (32; Sū.24).[107] Visūcikā and alasaka are described as related disorders (35; Sū.25.27–28), in the same way as in the *Carakasaṃhitā* (Vi.2.10–12). Separate disorders, characterized in the same chapter (35; Sū.25.30–33), are śuṣkakaṇḍū[108] and āma.[109] Madātyaya as a disease occurring in children (36; Sū.25.36) is different from the madātyaya

or pānātyaya in adults, which comprises disorders resulting from the abuse of alcoholic drinks.

The *Kāśyapasaṃhitā* recommends treating mental disorders in the same way as bodily diseases (39; Sū.27.5). A term used to designate the doṣas is dhātusthūṇā (40; Sū.27.6). The two main categories of disease, nija and āgantu (40; Sū.27.8–9), are defined as in the *Carakasaṃhitā* (Sū.20.4), but the *Kāśyapasaṃhitā* mentions, as belonging to the category āgantu, afflictions which are adhidevata, a term akin to the ādhidaivika category of the *Suśrutasaṃhitā* (Sū.24).

The eighty vāta, forty pitta and twenty kapha disorders (41–44; Sū.27.19–43) are largely identical with those enumerated in the *Carakasaṃhitā* (Sū.20.10–17).[110] The *Kāśyapa-* (45; Sū.27.49–56) and *Carakasaṃhitā* (Sū.19.3) also agree on the number of varieties of each disease to be distinguished.

Blood and pitta are said to be related to each other, but a separate list of diseases caused by corrupted blood is presented (46; Sū.27.63–64).[111] The list of auspicious and inauspicious bodily signs in children (47–48; Sū.28.6) is more detailed than in the *Carakasaṃhitā* (Śā.8.51).[112]

The sattva typology of the *Kāśyapasaṃhitā* (51–54) differs to some extent from this typology as described in the *Carakasaṃhitā* (Śā.4.37–39).[113] It adds a prājāpatya type to the śuddha group and replaces the praita sattva by two types, called bhūta and yākṣa. Nine sāra types are mentioned; the ninth type, added to the eight of the *Carakasaṃhitā* (Vi.8.102–114), is called ojaḥsāra (54).

The Vimānasthāna mentions a group of afflictions called avekṣitajagada (57).[114] The śiṣyopakramaṇīya chapter of the same section gives an elaborate account of the initiation of students (57–65). Kaumārabhṛtya is said to be the foremost of the eight divisions of āyurveda and to be based on the *Atharvaveda* (61).[115]

The *Kāśyapasaṃhitā* permits the study of āyurveda to students from all four varṇas (61).[116] The same chapter contains its own version of the divine origin of āyurveda and its descent to earth (61): Brahmā, after creating the universe, bestowed the science of life on the Aśvins who transmitted it to Indra, who, in his turn, gave it to the four sages Kaśyapa, Vaśiṣṭha, Atri and Bhṛgu, who endowed their sons and students with it.[117] The thesis is defended that āyurveda is not dependent on the *Atharvaveda* or all four Vedas, but that it is the fifth Veda, as important in relation to the other four as the thumb in relation to the four other fingers (61–62).

The Śārīrasthāna refers to a series of five and a series of six seasons (65). A number of terms reminiscent of Jainism occur in particular in this section of the *Kāśyapasaṃhitā* (65–66).[118] The cycle of time is, in conformity with Jain doctrine, divided into two halves, called utsarpiṇī and avasarpiṇī. Each half is subdivided into three yugas, the utsarpiṇī into Ādi-, Deva- and Kṛtayuga, the avasarpiṇī into Tretā-, Dvāpara- and Kaliyuga. The characteristics of human beings in these eras are elaborately described. The names for an aspect of the bodily structure, called saṃhanana,[119] in the four last yugas evoke, partly at least, Jain terms: nārāyaṇa in the Kṛtayuga, ardhanārāyaṇa in the Tretāyuga,[120] kauśika in the Dvāparayuga, and prajñaptipiśita in the Kaliyuga. The life span of a human being in these four eras is declared to be one palitopama,[121] a quarter, an eighth of an palitopama, and one hundred years. The same chapter contains

an outline of human anatomy (66) and a brief sketch of Sāṃkhya philosophy (67).[122]

The numbers of bones, vessels, etc., mentioned in the outline of anatomy, agree for the greater part with those of the *Carakasaṃhitā*. An exception forms the number of joints (sandhi), which is 381 in the *Kāśyapasaṃhitā*, but 200 in the *Carakasaṃhitā* (Śā.7.14). Some other numbers disagree with those of the *Suśrutasaṃhitā*.[123]

The description of the development of the child in the womb (70–72)[124] largely agrees with the *Carakasaṃhitā* (Śā.4). The lists of bodily constituents thought to be connected with each of the five mahābhūtas (72) resemble the lists of the *Carakasaṃhitā* (Śā.4.12) without being identical.[125] The same applies to the constituents derived from the father and the mother (72),[126] the ātman, and sātmya (73).[127] The list of seven receptacles (āśaya; 74) disagrees with what is found in other sources.[128]

The number of bones in the human body amounts to 363 (75), which odd number implies that the text of the śārīravicaya chapter cannot be correct.[129] The ten abodes of the prāṇas (prāṇāyatana; 76) are in conformity with one of the two series found in the *Carakasaṃhitā* (Sū.29.3).[130] The number of viscera is thirteen in the *Kāśyapasaṃhitā* (76), fifteen in the *Carakasaṃhitā* (Śā.7.10). The number of minor parts of the body is eighty-seven in the *Kāśyapasaṃhitā* (76–77), fifty-six in the *Carakasaṃhitā* (Śā.7.11). The total number of the vessels called sirā is 700 (66), ten of which, called mātar, are the most important ones (77). Peculiar to the *Kāśyapasaṃhitā* is the mention of one hundred vessels (dhamanī), originating from each ear, which transport air (anila = vāta) and are declared to be the supports of agni and soma (78); a preceding chapter of the Śārīrasthāna (66) considers them to be two hundred in number and to have their origin in the palate (tālu). The pores of the skin (romakūpa), which belong to the category of minute vessels (77; sūkṣmasrotas), are said to number 200,000 in males, 150,000 in females (79).[131] The quantities of bodily constituents (78) agree with those of the *Carakasaṃhitā*.[132]

The jātisūtrīya chapter of the Śārīrasthāna employs Vaiśeṣika terminology (79). The female procreational fluid (śoṇita) and the male semen are said to be fully formed from the age of sixteen onwards (79).[133] This chapter declares that the part of the menstrual cycle fit for sexual intercourse covers twelve days (the fourth to the fifteenth) for a brāhmaṇa couple, eleven for kṣatriyas, ten for vaiśyas, and nine for members of other groups (80);[134] this rule is not found in other medical works. The putrīyā iṣṭi, aiming at male offspring, described in this chapter (81), differs in details from the kāmyā iṣṭi of the *Carakasaṃhitā*.[135] The diet and recommended mode of life of a pregnant woman are described in detail (84).[136] The management of labour is discussed (84–86).[137] The labour pains, called āvī in the *Caraka-* and *Suśrutasaṃhitā* (Ca.Śā.8.37–38; Su.Ni.8.12), are designated by the term grāhī in the *Kāśyapasaṃhitā* (85).[138]

The Indriyasthāna (89; I.1.3–4) divides remedial measures into two broad categories: auṣadha (treatment with drugs) and bheṣaja (religious treatment).[139] Grahas mentioned are: Skanda, Skandāpasmāra, Skandapitar, Pauṇḍarīka, Revatī, Suṣkarevatī, Śakunī, Mukhamaṇḍikā, Pūtanā, and Naigameṣin (90).[140] The same seven types of dreams (91; I.1.23cd–24ab) as those found in the *Carakasaṃhitā* (I.5.43) are listed.

The chapter of the Cikitsitasthāna concerned with diseases of pregnant women mentions parikartikā, pravāhikā,[141] śotha, kāmalā, hṛdroga, vātaroga, ūrdhvānila,[142] hikkā, and śvāsa (95–96).[143] The chapter on puerperal diseases (duṣprajātācikitsita) has a long list of these disorders (97).[144]

The chapter on children's diseases caused by demonic beings (bālagraha) enumerates the twenty names of Revatī (99) which, when twice daily recited, protect a child from attacks by grahas (100). Guha, i.e., Kārttikeya, exposes that he regards Revatī, along with her five brothers and her sister Ṣaṣṭhī, as deserving of the same homage which is paid to himself; the sixth tithi, called ṣaṣṭhī, will be the day on which she should be worshipped. Two forms of Ṣaṇmukhī Ṣaṣṭhī are distinguished, Sūtikāṣaṣṭhī[145] and Pakṣaṣaṣṭhī.[146] A long list of disorders is said to be caused by Revatī (100).[147] The chapter goes on with a description of their treatment. The next subject is a myth relating how Pūtanā was born, another female demon, who bears five names.[148] The treatment of the disorders she may bring about is dealt with (101–102). Subsequently, disorders caused by Andhapūtanā and by Śītapūtanā, also known as Kaṭapūtanā,[149] are described, together with their treatment (102–103). The next verses contain the mythical origin of Mukhamaṇḍikā or Mukhārcikā, a female attendant of Skanda (= Kārttikeya) (103). The preserved part of the chapter ends with descriptions of the treatment of ailments caused by Mukhamaṇḍikā and Śītapūtanā (103–105).

The chapter on udāvarta lists six varieties, brought about by the suppression of the urges to break wind, defecate, urinate, ejaculate, vomit and sneeze (106);[150] the same chapter describes ānāha (106).[151]

Rājayakṣman is said to present six or eleven symptoms (110).[152] The *Kāśyapasaṃhitā* (116) mentions the same nine curable and incurable types of kuṣṭha as the *Bhelasaṃhitā*. The doṣas involved in some of the varieties of kuṣṭha are the same as those mentioned in the *Carakasaṃhitā* (Ni.5.5), with the exception of the two doṣas giving rise to sidhma.[153] The eight types of mūtrakṛcchra (120)[154] differ from those mentioned in the *Caraka-* and *Suśrutasaṃhitā*;[155] aśmarī (vesical calculi) and śarkarā (vesical gravel) are referred to in the chapter on mūtrakṛcchra, but not characterized. The two main categories of ulcers (vraṇa; 123) are the same as in the *Carakasaṃhitā* (Ci.25.5): nija and āgantu. Kaśyapa declares in the chapter on this subject (dvivraṇīyacikitsita)[156] that he will deal with it succinctly, because it belongs to the domain of another medical specialism. A series of therapeutic procedures (upakrama) is listed (124), without indicating their number.[157] The same chapter (126) enumerates types of boils (piḍakā), occurring in children: three with an excess of kapha (śarāvikā, kacchapikā, jālinī), three with an excess of pitta (sarṣapikā, alajī, vidradhi), one with an excess of vāta (vinatā), and one with an excess of all three doṣas (arumṣikā).[158] The vraṇa chapter also describes the aetiology, symptoms and treatment of arakīlikā (128), a disease unknown from other sources under this name.[159] Another, otherwise unknown, disorder, found in this chapter, is āmaccheda (129).[160]

The dvivraṇīya chapter contains an interesting myth on the origin of a particular type of boils (gaṇḍa) in children (129). This disorder is attributed to an elephant, called Duḥsaha, appearing in dreams of children and frightening them. This animal, resembling Airāvata, was created by Indra in order to satisfy Mahāsena. Duḥsaha created, in his turn, two grahas, called Śākha and Viśākha, who, out of gratitude, made him obtain the overlordship of all upagrahas.[161] The treatment of the boils caused by Duḥsaha

consists of both drugs and homage paid to him on the pañcamī (fifth tithi) of each lunar month.

The chapter on pratiśyāya refers to blood on the same footing as the three doṣas (130). A separate chapter is devoted to uroghāta (132–133), a disease related to pratiśyāya.[162] Four doṣic types of uroghāta are referred to. Śopha (inflammatory swelling) is said to be of four types (133).[163] The chapter on the treatment of parasitic disorders (kṛmiroga) refers to viḍaṅgaghṛta (134).[164] Three disorders due to the abuse of alcoholic drinks are distinguished: pānātyaya, pānavibhrama and pānāpakrama (135).[165] Four doṣic types of pānātyaya are described (137).[166]

A disease not described in any other treatise is phakka (139–142). A child affected by it does not learn to walk at the normal age.[167] Three varieties of phakka are distinguished, caused by a disorder of the breastmilk (kṣīraja), a disorder of the mother during pregnancy (garbhaja), and some other disease (vyādhija). Preparations employed in the treatment of phakka are kalyāṇakaghṛta, ṣaṭpalaghṛta and amṛtaghṛta (141);[168] brāhmīghṛta[169] was probably also prescribed, because it is referred to. Śūdras were excluded from the use of this brāhmīghṛta. Particularly recommended is a recipe called rājataila, which proved to be salutary to the sons of Ikṣvāku, Subāhu, Sagara, Nahuṣa, Dilīpa, Bharata and Gaya.[170] Finally, a tricycle (tricakra phakkarathaka) is described as a tool that is helpful to children suffering from phakka. The same chapter describes deafness (bādhirya) and dumbness (mūkatva), originating from a defect in either the one or the other half of the organ of speech.

The last chapter of the Cikitsitasthāna is concerned with the treatment of disorders in wet-nurses (142–146).

The Kalpasthāna of the *Kāśyapasaṃhitā* is not devoted, as the corresponding sections of the *Caraka-* and *Bhelasaṃhitā* are, to drugs which have a śodhana (emetic or purgative) action, but deals with diverse subjects.

Chapter one (170–174) is concerned with fumigations (dhūpa),[171] especially to be employed with the aim of warding off demons afflicting children. Substances of animal origin are important ingredients of these dhūpas, many of which have names. Three types of dhūpa are mentioned: dhūpa, anudhūpa and pratidhūpa. A story is told about Agni who bestowed the formulae of the dhūpas to the sages in order to protect children. A long mantra should be recited to make the treatment more successful (173).[172] An āgneya dhūpa (170) is regarded as particularly suitable to brāhmaṇas, whereas another dhūpa, called brāhma (171), may be prescribed to brāhmaṇas, kṣatriyas and vaiśyas.[173]

Chapter two (174–181) is on the mythical origin of garlic (laśuna) and its uses in medicine.[174] Garlic is said to originate from drops of the amṛta which fell on the earth when Indrāṇī belched the amṛta forth that Indra had made her drink in order to cure her infertility. The properties of laśuna, as described in the *Kāśyapasaṃhitā* (175), do not completely agree with those mentioned in other treatises.[175] The medicinal effects are mostly those found in a rasāyana. Many rules are given which pertain to the diet, etc., to be observed after the consumption of garlic. Rituals connected with laśuna are also described, in particular a garlic festival (gandhamaha; 180);[176] this festival owes its origin to Rudra, who expounded its beneficial effects to Bhadrakālī Umā[177] on an occasion when he, incognito, begged for alms in the Devadāru forest;[178] the garlic festival was instituted on this occasion as a means to deliver the wives of the sages from their childlessness (180–181).[179]

Chapter three (kaṭutailakalpa; 181–183)[180] opens with the claim that kaṭutaila (mustard oil) is the most excellent medicine in the treatment of plīhan (splenomegalia). Recipes are given against plīhan, rules about their dosage, etc. Chapter four (ṣaṭkalpa; 183–185) is about the treatment of eye diseases in children.[181] Chapter five (185–187) is concerned with the properties of śatapuṣpā and śatāvarī and their uses in medicine.

Chapter six, the Revatīkalpa (187–202), forms one of the most interesting parts of the *Kāśyapasaṃhitā*. Partly in prose of an archaic type, partly in verse, this long chapter deals with female demons, called Jātahāriṇī, who are manifestations of Revatī.[182] After a long mythological excursus, beginning with Prajāpati's creative acts, a story is told about an evil being (asurakanyā) called Dīrghajihvī,[183] who was destroyed by Revatī. This introduces Revatī as the chief character of the chapter. She is transformed into Jātahāriṇī, a being killing children in their mothers' womb. Her names are Revatī, Pilipicchikā, Raudrī, and Vāruṇī.

The Revatīkalpa proceeds with describing which types of bad behaviour in women provoke Revatī's wrath and lead to misfortune for the unborn child. Behavioural rules and rituals serving to ward off the attacks of Revatī are described, as well as many patterns of behaviour resulting in such an attack. The disorders in women caused by Revatī are many and manifold. The symptoms of these disorders are listed, together with the names designating both the women suffering from them and the Jātahāriṇīs.[184] Śuṣkarevatī, Kaṭambharā, Revatī, Vikuṭā, Parisrutā, Aṇḍaghnī, Durdharā, Kālarātrī, Mohinī, Stambhanī, Krośanā, and Nākinī are characterized by menstrual disorders or the death of the unborn child. The names of the fifteen Jātahāriṇīs causing the death of the child on the first up to the fifteenth day of its life are Piśācī, Yakṣī, Āsurī, Kali, Vāruṇī, Ṣaṣṭhī, Bhīrukā, Yāmyā, Mātaṅgī, Bhadrakālī, Raudrī, Vardhikā, Caṇḍikā, Kapālamālinī, and Pilipicchikā. Jātahāriṇīs leading to the child's death in a later period are Vaśyā, Kulakṣayakarī, Puṇyajanī, Pauruṣādinī, Saṃdaṃśī, Karkoṭakī, Indravaḍavā, and Vaḍavāmukhī. Some verses on the origin of twins and their characteristics follow.

The discourse on Revatī continues with an exposition by Kaśyapa on the three forms she assumes, daivī, mānuṣī and tiraścīnī, which enable her to pervade the worlds of the gods, human beings and animals. The homage paid to Revatī by the gods and the sages (Kaśyapa included) made her endow them with numerous and prosperous offspring. This tale introduces the Revatīkalpa sensu stricto, as expounded by Kaśyapa to his pupils.

Kaśyapa tells Vṛddhajīvaka that women who do not observe the rules of dharma may be harassed by Revatī and therefore require expert medical care. Women belonging to one of the four varṇas or a mixed class (varṇāntara), as well as women called liṅginī and kārukī, are liable to Revatī's attacks. The Revatīkalpa describes in which way these attacks manifest themselves in each of the classes of women enumerated and gives details on the expiation (prāyaścitti) that is required. This part of the Revatīkalpa contains long lists of mixed castes, of female ascetics (liṅginī),[185] and of women belonging to various castes of artisans (kārukī) (195).

This section on the mānuṣī form of Revatī is followed by one on her tiraścīnī form,

its five varieties (śakunī, catuṣpadī, sarpā, matsyī, vanaspatī) and numerous subvarieties (196–197); this section argues strongly in favour of ahiṃsā, because the intentional killing of animals incenses particular forms of Revatī. The Revatīkalpa ends with a list of symptoms presented by children afflicted by Revatī (198–199) and an elaborate description of the ritual (varaṇabandha) to be performed by the physician in order to save these children.[186] Successful performance of the rite demands that the physician be conversant with the mātaṅgī vidyā,[187] obtained by the great sage Mataṅga, Kaśyapa's youngest son,[188] from Brahmā. The effects of this powerful vidyā are extolled. Next to it, the rudramātaṅgī and its beneficial effects are described.[189]

Chapter seven (bhojanakalpa; 202–213) is about feeding habits and foods; numerous countries are mentioned, together with the foods most suitable to their inhabitants (206–207); details are given on the uses of maṇḍa,[190] yavāgū (gruel), milk, and sugarcane juice.

Chapter eight (viśeṣakalpa; 213–225) has saṃnipāta fevers as its subject, their varieties, and their treatment. Thirteen types of saṃnipātajvara are mentioned; due to the lacunary state of the text, the descriptions have only partially been preserved (214–217).[191] Some interesting verses (217) show that the aetiology of the saṃnipāta fever called kūṭapākala was a hotly debated issue.[192] A previously healthy person, suddenly presenting signs pointing to excitement of all three doṣas, will be covered with boils (piḍakā) called viṣasaṃjñaka (217).[193]

Chapter nine (saṃhitākalpa; 225–227) is, as already mentioned, about the origin and contents of the *Kāśyapasaṃhitā*.

The Khilasthāna begins with a chapter on irregular fevers (viṣamajvaranirdeśīya; 227–234). Vṛddhajīvaka puts questions to Kaśyapa on the aetiology of these fevers, because this subject is absent from the chapter on the treatment of fevers in general. Four irregular fevers are described, satataka, anyedyuṣka, tṛtīyaka and caturthaka, to which pretajvara and grahajvara are added. Satataka has the nature of Agni, dvitīyaka (= anyedyuṣka) that of Vāyu, while tṛtīyaka and caturthaka are associated with the Viśvedevāḥ and Īśāna. Chapter two (viśeṣanirdeśīya; 234–240) proceeds with describing fevers and their treatment; groups of drugs are enumerated which are śodhana, śamana and śamanaśodhana (238–239; 2.57–62ab).

Chapter three (bhaiṣajyopakramaṇīya; 240–249) deals with the classification of diseases; a bodily disease is called vyādhi, a mental disorder ādhi[194] (241; 3.19); pharmaceutical preparations of vegetable origin are divided into seven types: cūrṇa, śītakaṣāya, svarasa, abhiṣava, phāṇṭa, kalka, and kvātha (242–243; 3.35–43ab);[195] the periods of time at which a medicine should be taken (auṣadhakāla) are ten in number (243–244; 3.43–52);[196] the stages of the human life cycle are discussed (245–246; 3.71ab–76); much attention is given to the dosages of medicines to be administered to children (246–248; 3.77–102ab).[197]

Chapter four (yūṣanirdeśīya; 249–255) is about medicinal soups (yūṣa) and related preparations (peyā, yavāgū); twenty-five different soups are described (250–251; 4.19cd–24ab), divided into two (251; 4.24cd–25ab)[198] or three (251; 4.25cd–26ab)[199] groups.

Chapter five (bhojyopakramaṇīya; 255–260) is concerned with diet, sātmya, the tastes, articles of food that may or may not be combined,[200] etc.; the combination of milk and fish is, as in the *Carakasaṃhitā*,[201] advised against.

Chapter six (rasadoṣavibhāgīya; 261–268) distinguishes sixty-two disturbed states of the doṣic equilibrium (261–262; 6.5–11);[202] the tastes and their combinations (their total number is sixty-three) are also listed (262–263; 6.12–19);[203] further subdivisions of the conditions which may prevail among the doṣas and the tastes make their total numbers into 4,160 and 3,073 respectively (265–266; 6.48–70ab).

Chapter seven (saṃśuddhiveśeṣaṇīya; 268–277) is mainly devoted to treatment with emetics and clysters.

Chapter nine (raktagulmaviniścaya; 286–292)[204] is entirely devoted to raktagulma, a disease restricted to women, characterized by symptoms simulating pregnancy. The *Kāśyapasaṃhitā* is the only treatise known with a separate chapter on this disorder.[205] The chapter is of importance because it contains much material on female physiology and some related topics. The human body is described as possessing seven receptacles (āśaya), for faeces, urine, parasites (krimi), undigested (āma) and digested (pakva) food, kapha, and vāta; an eighth receptacle, the uterus (garbhāśaya), is present in women (9.16).

Chapter ten (antarvatnīcikitsita; 293–304)[206] is about diseases of pregnant women and their treatment; diseases mentioned are: jvara (293–297; 10.4–65), atisāra, (pra)vāhikā, parikartikā (10.102cd–106ab),[207] pārśvopagraha, mukhapāka, ākṣepa, apatānaka, chardi (10.118–127ab),[208] kāmalā, hṛcchūla (10.128cd–131ab),[209] kāsa, śvāsa, ūrdhvānila (10.141),[210] hikkā, mūtragraha, gulma, vātaroga, granthi, piḍakā, śotha, rohiṇī, bhagna, and sarpadaṃśa (snake-bite); the remaining part of the chapter is filled with signs pointing to some disorder of pregnancy, and with ariṣṭas.

Chapter eleven (sūtikopakramaṇīya; 304–316)[211] defines the term sūtikā (11.6);[212] a list of sixty-four puerperal diseases is presented (11.7–13);[213] the three types of country (deśa) are mentioned, together with the treatment appropriate to women living in these regions (11.28–33); due consideration should be given to mleccha (i.e., non-Aryan) women and their habits (11.34–36);[214] six types of puerperal fevers are referred to, caused by vāta, pitta, kapha, saṃnipāta, lactation, and grahas (11.39–69); a large part of the chapter is devoted to the treatment of puerperal fevers.[215]

Chapter twelve (jātakarmottara; 316–319) is concerned with rituals to be performed in the first year of life and the treatment of infants;[216] at the end of the first month the child is shown the sun and the moon; in the fourth month the child is taken to a temple where several deities are worshipped (niṣkramaṇasaṃskāra); in an interesting ritual to be performed in the sixth month of life, Pṛthivī is invoked, while the child is surrounded by auspicious objects and all kinds of toys; the annaprāśana, the ceremony of giving cooked food to the child for the first time, should take place not in the sixth, but in the tenth month, after the eruption of the teeth; fruit juices may already be administered in the sixth month.[217]

Chapter thirteen (kukkuṇakacikitsita; 319–324)[218] deals with an eye disease in children, called kukkuṇaka,[219] ascribed to unhealthy dietary habits of the person nursing the child, and said to be caused by kapha and blood; the symptoms described resemble those of a conjunctivitis.[220]

Chapter fourteen (visarpacikitsita; 324–331),[221] describing visarpa (erysipelas) and its treatment, distinguishes seven varieties of this disease: three caused by one doṣa, three by a combination of two doṣas, and one by all three doṣas.[222]

Chapter fifteen (carmadalacikitsita; 331–335)[223] is entirely devoted to the disease called carmadala, already mentioned in the chapter on the treatment of kuṣṭha (kuṣṭhacikitsita) as one of the nine incurable forms of that disease.[224] The *Kāśyapasaṃhitā* is the only medical treatise known that has a separate chapter on carmadala. The characterization of the disease in the Khilasthāna does not tally with what is said about it in the kuṣṭhacikitsita chapter. Chapter fifteen of the Khilasthāna contains lengthy descriptions of the aetiology, symptomatology and treatment of the varieties of carmadala caused by vāta, pitta and kapha. A sāṃnipātika variety is also described, but not its treatment, since it is thought to be incurable.[225]

A hereditary form of carmadala (brought about by kulapravṛtti), unknown from other treatises, is referred to in the description of the general aetiology of carmadala.

Chapter sixteen on amlapitta (335–339) has no parallel in the *Caraka-* or *Suśrutasaṃhitā*, nor in the works ascribed to *Vāgbhaṭa*.[226] The description of this disease appears to be independent of the *Hārītasaṃhitā* and *Mādhavanidāna*. In contrast with the *Mādhavanidāna* and the *Hārītasaṃhitā*, the *Kāśyapasaṃhitā* distinguishes three varieties of amlapitta, caused by vāta, pitta and kapha respectively.[227] The complications (upadrava) of the disease, which is also called śuktaka (338; 16.43), are added (16.49). A noteworthy feature in its treatment is the advice (16.44cd–45) to move to a jāṅgala country, the most healthy one, if the disorder, prevalent in ānūpa countries, is not cured by a long-term treatment by means of jāṅgala remedies.

Chapter seventeen on local swellings (śothacikitsita; 339–345) distinguishes four doṣic varieties, caused by vāta, pitta, kapha, and all three doṣas, a fifth one of traumatic origin (āgantu), and a sixth variety caused by poison (viṣa).[228]

Chapter eighteen (śūlacikitsā; 345–349) is remarkable because the *Carakasaṃhitā*, *Suśrutasaṃhitā*, and the works of Vāgbhaṭa do not have a separate chapter on this group of disorders.[229] The *Kāśyapasaṃhitā* describes three varieties of śūla, caused by vāta, pitta and kapha.[230]

Chapter twenty (aṣṭajvaracikitsita; 349–353) contains some additional material on the treatment of fevers.

Chapter twenty-one (madhuviśeṣaṇīya; 353–354), very fragmentarily preserved, deals with the properties of honey and its uses, chapter twenty-two (kṣīraguṇaviśeṣīya; 354–356) with the properties and uses of milk,[231] chapter twenty-three (pānīyaguṇaviśeṣīya; 356–359) with the properties and uses of water,[232] chapter twenty-four (māṃsaguṇaviśeṣīya; 359–363) with the properties and uses of the flesh of a long series of animals.[233]

Chapter twenty-five, the last chapter (deśasātmya; 363–364), fragmentarily extant, is about the dietary habits of the inhabitants of various countries and the diseases prevalent in those countries, a subject also dealt with in the bhojanakalpa chapter of the Kalpasthāna (206–207).[234]

Some noteworthy nosological terms are: āḍhyavāta (349), apatānaka (167), bradhna (144), dhānvīraka (212),[235] garbhadāha (17), hanusaṃdaṃśa (185),[236] kakṣyā

(331),[237] kaṭukinī (252),[238] koṭha (329), kothaka (322),[239] mahattva (26),[240] masūrikā (331), pillikā (320; 321), pilliman (184; 185),[241] śākhāvāta (305), śākhāvāyu (97), utpātaroga (333),[242] utthāna (349),[243] upagraha (170), upaśoṣa (176), and visphoṭa (331).

Names of plants not occurring in the *Bṛhattrayī* or only rarely found there are:[244] āḍhyā (351),[245] ajaṭī (101; 110),[246] ambara (170),[247] barhiṣṭha (314),[248] bhadrarohiṇī (314; 348),[249] bhekarāja (320),[250] bhekarājī (320), devapuṣpa (284),[251] devapuṣpā (314), devapuṣpaka (314; 344), devatāḍaka (311; 350),[252] ekaparṇī (141),[253] enīyaka (347),[254] gandhapalāśa (348),[255] gaurī (5),[256] gavādanī (342),[257] girikadambaka (101; 295),[258] hastikarṇapalāśa (344),[259] hiṅguparṇī (335),[260] ikṣugaṇḍa (327),[261] kairava (311),[262] kākalā (344),[263] kaṇḍopapuṣpī (223),[264] karavindī (295),[265] kharabusa (168; 169),[266] kūlaka (169),[267] maruvā (312),[268] mātar (183),[269] mātṛkā (170),[270] muktiphala (333),[271] nadībhallātaka (104),[272] nāḍikā (7),[273] nāgavīryā (144),[274] nameru (86; 170; 172),[275] nigarbhā (121),[276] nīlaspanda (234),[277] nimandaka (180),[278] pravarāhva (346),[279] pravaraka (159),[280] puṣpaka (183; 184), rocaka (351),[281] sāmaka (314),[282] samudrāntā (169),[283] śaraṭa (301),[284] śatru (322),[285] siddha (322),[286] śirivārikā (168; 347),[287] śītaka (343),[288] śītaśiva (104),[289] sitavārikā (119),[290] śrīvārikā (107),[291] suvarcikā (101; 254),[292] svādukaṇṭaka (335),[293] tribhaṇṭī (234),[294] uṣṭralomikā (311; 350),[295] varcīva (326; 327; 342; 350),[296] vasuka (two types are mentioned; 121),[297] veḍa (334),[298] vīralla (104),[299] vitūrṇaka (334),[300] vṛṣatparṇī (254),[301] vyāghātaka (328),[302] yakṣā (350),[303] yakṣaguhā (311),[304] and yātumūla (343).[305]

Date

The story about the origin and transmission of the *Kāśyapasaṃhitā*, found in the last chapter of the Kalpasthāna, discloses that the text as it has come down to us is the revised version of an older treatise that contained Kaśyapa's teachings on kaumārabhṛtya, passed on to Vṛddhajīvaka and some of the latter's fellow pupils, among whom Vāryovida is mentioned by name.[306]

The Kaśyapa of the *Kāśyapasaṃhitā* is one of a series of authorities of this name. Sanskrit medical literature refers to a Kaśyapa, who is sometimes confused with Kāśyapa.[307] The *Kāśyapasaṃhitā* designates Kaśyapa with the patronymic Mārīca, in accordance with a tradition, recorded in the epics and the Purāṇas, that Kaśyapa was a son of Marīci.[308] It is, however, the only medical treatise that calls him Prajāpati.[309] A Kaśyapadeva, to be worshipped, along with Aditi, Indrāṇī, Indra and the Aśvins, at the approach of a woman's confinement, is mentioned in the jātisūtrīya chapter (85).

Kaśyapa's name is replaced by that of Kāśyapa in s short treatise with the title *Kāśyaparṣiproktastrīcikitsāsūtra*, lost in its Sanskrit original, but preserved in a Chinese translation that forms part of the *Tripiṭaka*.[310] P.C. Bagchi,[311] who studied this work, affirms that it was translated by Dharmadeva or Dharmabhadra, who went to China in A.D. 973 and stayed there until his death in A.D. 1001.[312] The text, which mentions Kāśyapa as the teacher and Jīvaka as the pupil, deals with prenatal care and describes disorders of pregnancy and their treatment. P.C. Bagchi considers it to be an extract from the lost portion of the jātisūtrīya chapter of the *Kāśyapasaṃhitā*, since it deals

with matter found in the chapters of the same name of the *Caraka-* and *Bhelasaṃhitā*. The prescriptions of the *Strīcikitsāsūtra* are more elaborate that those of Caraka and Bhela. Particular to it are prescriptions for the tenth, eleventh and twelfth months of pregnancy.

The *Kāśyapasaṃhitā* is the only medical treatise that presents Kaśyapa as a specialist in kaumārabhṛtya, whereas many medical authors and works quote from or refer to a specialist in this branch of āyurveda who was called Kāśyapa.[313] As we have seen, the *Strīcikitsāsūtra* conforms to this tradition. An authority on kaumārabhṛtya called Vṛddhakāśyapa is also known from quotations.[314]

The confusion of Kaśyapa and Kāśyapa has a long history, as attested by an anonymous monograph on fevers, the *Jvarasamuccaya*, a work dating from before A.D. 924. This work contains a number of verses, attributed to Kāśyapa, which closely agree with lines found in the text of the *Kāśyapasaṃhitā*.[315]

The other quotations from the specialist in kaumārabhṛtya called Kaśyapa cannot be traced in the preserved parts of the *Kāśyapasaṃhitā*, which, if the possibility that they are in toto from lost parts of the treatise is discarded, proves that a different version, no longer extant, has been current.

The Kaśyapa of the *Kāśyapasaṃhitā* is by a number of, chiefly Indian, authors regarded as a very ancient authority, contemporary of Ātreya Punarvasu.[316] In my opinion, it is not open to doubt that this great Kaśyapa, the Prajāpati, figures in the work to give it the weight of antiquity and has no implications for its chronological position.[317]

Kaśyapa's chief pupil, Vṛddhajīvaka, although by some considered to be identical with the Jīvaka of Buddhist literature,[318] is clearly a different person.[319] The Jīvaka of Buddhist literature was a surgeon, whereas Vṛddhajīvaka was trained in kaumārabhṛtya.[320] A complication that may have contributed to this confusion is the fact that Vṛddhajīvaka is referred to as Jīvaka in Anantakumāra's *Yogaratnasamuccaya*, the Bower MS, Ḍalhaṇa's *Nibandhasaṃgraha*, the *Strīcikitsāsūtra*, and Vaṅgasena's *Cikitsāsārasaṃgraha*.[321]

The names of Jīvaka and Vṛddhajīvaka are connected with each other by P.V. Sharma,[322] who supposes Vṛddhajīvaka, in conformity with his name, to be somewhat earlier than Jīvaka.

The date of the version of the *Kāśyapasaṃhitā* from which the untraced quotations derive cannot be established. The same applies to the treatise before its revision by Vātsya.[323] The work rewritten by Vātsya may have had *Vṛddhajīvakīyatantra* as its title, as borne out by some colophons,[324] which are of the same type as those found in the *Carakasaṃhitā*, revised by Dṛḍhabala.[325]

Vātsya, who introduces himself in the last chapter of the Kalpasthāna, which was probably the final chapter of the work before he began revising and completing it, is, on account of his association with the yakṣa Anāyāsa, who protected the city of Kauśāmbī, the capital of Vatsadeśa,[326] supposed to have resided there.[327] Others interpret the name as an indication of his having been a brāhmaṇa of Vatsagotra, in the same way as Vātsyāyana, the author of the *Kāmasūtra*.[328]

Due to Vātsya's activity, the sections of the *Kāśyapasaṃhitā* from the Sūtrasthāna up to the Kalpasthāna consist of two layers which can, unfortunately, not be distinguished from each other. The Khilasthāna, an appendix that resembles the Uttaratantra of the *Suśrutasaṃhitā*, was probably in its entirety added by Vātsya,[329] as indicated by its contents and by the colophons which no longer refer to a pratisaṃskartar. Many chapters of the Khilasthāna mention that a particular subject, not dealt with in the preceding sections, will be expounded.[330] Moreover, some subjects already dealt with in the Cikitsitasthāna, are discussed again in the Khilasthāna.[331]

The date of Vātsya's revised version of the *Kāśyapasaṃhitā* is elucidated by the quotations in the *Jvarasamuccaya*, the MS of which was completed in A.D. 924.[332] A version of the *Kāśyapasaṃhitā* related to the text known to us was apparently available to the author of this *Jvarasamuccaya*, who apparently lived some time before A.D. 900. The *Kāśyaparṣiproktastrīcikitsāsūtra* may point to a version being known in the tenth century. Some statements on the qualities of breastmilk, attributed to Jīvaka by Vaṅgasena (strīroga 341–344), suggest that this author was acquainted with the *Vṛddhajīvakīyatantra*, because the relevant verses may have formed part of chapter nineteen of the Sūtrasthāna of the *Kāśyapasaṃhitā*. Vaṅgasena's work contains some more verses, not ascribed to any authority, which are found in the *Kāśyapasaṃhitā*.[333]

More evidence concerning the date of Vātsya's revised version of the *Kāśyapasaṃhitā* can be collected only from its contents. The references to Jainism[334] and Buddhism[335] are not of much avail for chronological purposes. Hinduism prevails in the work. The type of Hinduism of which the *Kāśyapasaṃhitā* gives evidence is in favour of dating it to the Gupta period.[336] In support of this are the Tantric elements present: Bhadrakālī is mentioned (180; laśunakalpa 108); Tantric mantras are employed;[337] the mātaṅgī vidyā is referred to (199–200; Revatīkalpa 80);[338] the Siddhas should be honoured by a physician (37; Sū.26.4); siddhamantras are mentioned (230). Indicative of the same age are the social structure, reflected, for example, in the numerous references to varṇas, castes and professions,[339] the increased influence of popular religion[340] in comparison with the *Carakasaṃhitā*, *Suśrutasaṃhitā*, and the works of Vāgbhaṭa, the geographical terms,[341] and the names of peoples such as the Hūṇas.[342]

Nosological features with a bearing on the chronological position of the *Kāśyapasaṃhitā* are the separate chapters of the Khilasthāna on śūla and amlapitta, diseases not yet described as distinct nosological entities by Caraka, Bhela, Suśruta, and Vāgbhaṭa, but appearing as such in the *Mādhavanidāna*, where, however, the descriptions are so much different that the *Kāśyapasaṃhitā* and *Mādhavanidāna* may be regarded as completely independent in this respect. The absence of any influence from the side of the *Mādhavanidāna* strengthens the view that the *Kāśyapasaṃhitā* is earlier and may tentatively be placed in about the seventh century.[343]

P.V. Tewari[344] assumes that someone made changes in the text rather late, in the eleventh to thirteenth century. This unknown reviser made Vātsya take part in a discussion; he also added three lines to the end of chapter nineteen of the Sūtrasthāna.

Chapter 4
Hārītasaṃhitā

The *Hārītasaṃhitā*[1,2] is one of the complete textbooks that deal principally with internal medicine (kāyacikitsā); it differs considerably from the *Caraka-* and *Bhelasaṃhitā* which focus on the same division of āyurveda.

Contents

The *Hārītasaṃhitā* is written in the form of a dialogue between Ātreya[3] and Hārīta.[4] The treatise is designated as *Ātreyabhāṣita Hārītottara* in nearly all the chapter colophons, with only one exception (I.2), where it is referred to as *Vaidyasarvasva*. Hārīta, sometimes addressed as Putra(ka) (I.1.8; III.5.22; III.8.11),[5] receives the teachings of Ātreya, also referred to as Atri (V.1.1; pariśiṣṭādhyāya) and pitar (I.8.5), who is surrounded by students, on the northern slopes of the Himālayas (I.1.2–5; V.1.1).

The work is almost entirely in verse, apart from a portion of the Śārīrasthāna, the ritual prescriptions,[6] and the mantras.

The internal arrangement diverges considerably from that of the other saṃhitās. The number of chapters is 102; one additional chapter, the pariśiṣṭādhyāya, is found at the end. The chapters are distributed over six sections (sthāna), the names of which are given in the text (I.2.3–4) and in part of the colophons of sections IV, V and VI. The name of each chapter is found in the colophon only, in contrast with the *Caraka-*, *Suśruta-*, *Bhela-*, and *Kāśyapasaṃhitā*, where the title of a chapter figures at the beginning. A detailed table of contents is absent.[7]

The *Hārītasaṃhitā* is composed of the following sections: I, annapāna, twenty-three chapters;[8] II, ariṣṭa, nine chapters; III, cikitsita, fifty-eight chapters; IV, sūtra, six chapters; V, kalpa, five chapters; VI, śārīra, one chapter.[9]

The subjects of the chapters of the Annapānasthāna are: (1: vaidyaguṇadoṣaśāstrapāṭhanavidhi): after the maṅgala (to Śiva) and the introductory dialogue between Ātreya and Hārīta, an exposition is given by Ātreya on the extent of the medical science, followed by the announcement that he is going to teach a very concise version of it;[10] the next subjects are the qualities a vaidya should possess, the way āyurveda should be studied, and the circumstances prohibiting its study;[11] (2: cikitsāsaṃgraha): the eight sections of the work, the aṅgas of āyurveda, and the supplementary aṅga (upāṅga); (3: vaidyaśikṣāvidhāna): generalities on the physician and his activities; (4: ṛtucaryā): the types of country, the three divisions of time, the regimen during the seasons; (5: doṣaprakopa): the stages of life (vayas), the constitutions (prakṛti), the

different kinds of vāyu (= vāta), the causes of excitement of vāyu, pitta and kapha; (6: ṣaḍrasavarṇana): the six tastes.

Chapters seven to twenty-three are devoted to the medicinal properties of foods and drinks:[12] water (7: jala), milk and dairy produce (8: kṣīra), urine (9: mūtra), products of the sugarcane (10: ikṣu), kāñjika (11), maṇḍa (12), yūṣa (13), fatty substances (14: tailavasā), grain (15: dhānya), vegetables (16: śāka), fruits (17: phala), honey (18: madhu), alcoholic drinks (19: madya), flesh of quadrupeds (20: catuṣpadānāṃ māṃsavargaḥ), flesh of terrestial animals, mainly birds (21: sthalacarāṇāṃ māṃsavargaḥ), flesh of aquatic animals (22: jalacarāṇāṃ māṃsavargaḥ), and prepared foods, supplemented with rules concerning diet (23: annapāna).

The Ariṣṭasthāna[13] deals with diseases resulting from bad karman (1: pāpadoṣapratīkāra),[14] dreams and their prognostic meaning (2: svapna),[15] signs foreboding death (3: svāsthyāriṣṭa),[16] unfavourable prognostic signs in a long series of diseases (4: vyādhyariṣṭa),[17] alterations of the sensorial faculties (5: pañcendriyavikāra),[18] afflictions caused by the nakṣatras (6: nakṣatrajñāna), oblations into the sacrificial fire (7: homavidhi), prognostic signs connected with the messenger (8: dūtaparīkṣālakṣaṇa),[19] prognostic signs connected with birds (9.1–12: śakuna)[20] and with objects seen by the physician on his way to a patient (9.13–18: darśanāriṣṭa).[21]

Chapter one of the Cikitsitasthāna is concerned with generalities about

fevers and their treatment with drugs and diet (1: bheṣajaparijñānavidhi); the remaining chapters are devoted to diseases and their treatment (2–58).[22]

The Sūtrasthāna is devoted to weights and measures (1: tulāmāna), the preparation of medicated oils (2: tailapāka), clysters (3: nirūhabastikarman), sudation (4: svedana), bloodletting (5: raktāvasecana), and the application of leeches (6: jalaukācāra).

The chapters of the Kalpasthāna are about: (1) harītakīkalpa, (2) triphalākvātha, (3) various preparations with harītakī as the main ingredient (harītakīkalpavarṇanabheda), (4) rasonakalpa, (5) guggulukalpa.

The Śārīrasthāna describes the nature of the human body (dehaprakṛti), the origin of twins (apatyayugma) and individuals who are neither male nor female (napuṃsaka), and the formation of human beings (sattvasaṃbhava).

The pariśiṣṭādhyāya describes the termination of Hārīta's instruction by Ātreya and extols a number of medical authorities.

As already mentioned, the structure of the *Hārītasaṃhitā* and the distribution of the subject-matter disagree with the saṃhitās of Caraka, Bhela, Suśruta and Vāgbhaṭa. The differences are so considerable that Hārīta's treatise can hardly be regarded as belonging to the school of Ātreya, in spite of the latter's position as Hārīta's teacher.[23]

The first section, the Annapānasthāna, contains the larger part of the material commonly found in a Sūtrasthāna, while the remaining general subjects are treated in section four, the Sūtrasthāna.[24] The Ariṣṭasthāna corresponds to the Indriyasthāna of the *Caraka-* and *Bhelasaṃhitā*. A Nidānasthāna is absent; the nidāna of the diseases is described in the Cikitsitasthāna.[25]

The order of the diseases in the Cikitsitasthāna does not follow one of the earlier patterns and is peculiar to the *Hārītasaṃhitā*. The aṅgas of āyurveda are represented in this section as follows: kāyacikitsā, 1–39; śālākya, 40–42 and 44–46; rasāyana, 43;

vājīkaraṇa, 47; kaumārabhṛtya, 48–54; bhūtavidyā, 55;[26] viṣatantra, 56; upāṅga, 57–58;[27] the material on śalya is scattered over the kāyacikitsā chapters and is found in particular in chapters 35 and 38.

An unusual feature is the presence of separate chapters on śūla (7), dāha (17), āmavāta (21), amlapitta (24), upasarga (34), ślīpada (36), arbuda (37), gaṇḍamālā and lūtā (38), bhrūdoṣa (41), indralupta (43), and agnidagdha (58).

The *Hārītasaṃhitā* describes a number of diseases which are otherwise unknown.[28] Diseases not dealt with are ānāha, arocaka, bhagandara, hikkā, hṛdroga, kṣudraroga, medoroga, śūkadoṣa, svarabheda, śvāsa, and upadaṃśa.[29]

Verses about what is wholesome (pathya) and unwholesome (apathya) in a particular disease are, as is usual in later āyurvedic works, found at the end of each chapter of the Cikitsitasthāna.

The Sūtra- and Śārīrasthāna of the *Hārītasaṃhitā* follow upon the Cikitsitasthāna instead of, as usual, preceding it.

Authorities mentioned in the *Hārītasaṃhitā*, apart form those named in the pariśiṣṭādhyāya, are: Agasti,[30] Agastya,[31] Atri,[32] Kāṅkāyana,[33] Kṛṣṇātreya,[34] and Parāśara.[35]

Quotations and references[36]

The following authors and works quote Hārīta or refer to him: Āḍhamalla,[37] the *Amṛtasāgara*,[38] Ananta's *Pratāpakalpadruma*,[39] Anantakumāra,[40] Aruṇadatta,[41] Āryadāsa Kumārasiṃha's *Kvāthamaṇimālā*, the *Āyurvedābdhisāra*[42] and its commentary,[43] Śrīvāṇeśvara Bhaṭṭācārya's *Rasaratnadīpikā*,[44] Bhāvamiśra,[45] *Bheṣajakalpasārasaṃgraha*,[46] *Bhesajjamañjūsāsannaya*, Bower MS,[47] *Bṛhannighaṇṭuratnākara*,[48] Cakrapāṇidatta,[49] Cāmuṇḍa,[50] Candraṭa,[51] *Carakasaṃhitā*,[52] Ḍalhaṇa,[53] *Dhanvantari*,[54] Dhanvantari's *Cikitsākalikā*, Vācaka Dīpacandra's *Laṅghanapathyanirṇaya*, Viśvanātha Dvivedī's *Rasendrasambhava*,[55] Gaṅgādhara's *Bheṣajakalpa*, Gaṅgādhara's commentary on the *Carakasaṃhitā*,[56] *Garuḍapurāṇa*,[57] Gopāladāśa's *Cikitsāmṛta*, Gopāladāsa Vādīndra's *Cikitsāsāra*, Govindadāsa's *Bhaiṣajyaratnāvalī*,[58] Gulrājśarmamiśra's commentary on the *Āyurvedaprakāśa*,[59] Haṃsarāja,[60] Harṣakīrti,[61] Hemādri,[62] Hemādri's *Lakṣaṇaprakāśa*,[63] Jayaratna,[64] Jejjaṭa,[65] Jīvānandavidyāsāgara's commentary on the *Rasendrasārasaṃgraha*,[66] *Jvaracikitsita*, *Jvarasamuccaya*,[67] the *Kairalī* commentary on the Uttarasthāna of the *Aṣṭāṅgahṛdayasaṃhitā*,[68] Kalyāṇadāsa,[69] Karandīkar's *Nidānadīpikā*,[70] Kṛṣṇadatta,[71] Kṣemaśarman,[72] Lakṣmaṇapaṇḍita's *Yogacandrikā*, the *Mādhavadravyaguṇa*,[73] Māgacandradeva, Māṇikyacandra's *Rasāvatāra*,[74] Meghamuni's *Meghavinoda*,[75] Nāganātha's *Nidānapradīpa*, Narahari's *Vāgbhaṭamaṇḍana*,[76] Narasiṃha's commentary on the *Mādhavanidāna*, Nārāyaṇabhūpati's *Nārāyaṇavilāsa*,[77] Nīlakaṇṭha's *Basavarājīya*,[78] Niścalakara,[79] Nityanātha's *Rasaratnākara*,[80] Parameśvara,[81] Paraśurāma's *Rasarājaśiromaṇi*,[82] Rāmaprasāda's *Rasendrapurāṇa*,[83] the *Rasayogasāgara*, Rūpanayana's commentary on the *Yogaśataka*, the *Śāligrāmanighaṇṭubhūṣaṇa* of the *Bṛhannighaṇṭuratnākara*,[84] Śaṃkara's *Vaidyavinoda*,[85] the *Satkarmadīpikā*, Āśubodha and Nityabodha Senagupta's commentary on the *Rasaratnasamuccaya*,[86] Śivadāsasena,[87] Soḍhala,[88] Śrīkaṇṭhadatta,[89] Sukhānanda,[90] Tīsaṭa,[91] Ṭoḍara,[92] Trimalla,[93] Tulasīdāsa's *Yogasārasaṃgraha*, Vācaspati,[94] Vāgbhaṭa,[95] Vallabhabhaṭṭa's commentary on Śārṅgadhara's *Jvaratriśatī*,[96] Vijayarakṣita,[97] Vinodalālasena,[98] *Vīrasiṃhāvaloka*,[99] Viṣṇudeva's *Rasarājalakṣmī*,[100] Vopadeva,[101] *Yogaratnākara*,[102] and *Yogadīpikā*.

The hārītīyāḥ are quoted by Niścalakara.[103]

A work called *Vṛddhahārīta*[104] is quoted by Anantakumāra,[105] Ṭoḍara,[106] Trimalla,[107] and in the *Yogaratnākara*.[108]

A treatise called *Bṛhaddhārīta* is quoted in the *Yuktikalpataru*, attributed to Bhoja.[109]

Quotations attributed to Ātreya or said to be from the *Ātreyasaṃhitā* may be from the *Hārītasaṃhitā*, since the work is also referred to as *Ātreyasaṃhitā*.[110]

The following authors and works refer to *Ātreya*[111] or quote him: Aghoranātha,[112] the *Amṛtasāgara*,[113] Anantakumāra's *Yogaratnasamuccaya*,[114] Aśvaghoṣa's *Buddhacarita*,[115] the *Āyurvedāgama*,[116] Bhānuji Dīkṣita,[117] Bharadvāja's *Bheṣajakalpa*,[118] Bhāvamiśra,[119] Bindu's *Rasapaddhati*,[120] the Bower MS,[121] the *Bṛhannighaṇṭuratnākara*,[122] Cakrapāṇidatta,[123] Candraṭa,[124] the *Carakasaṃhitā*,[125] Dāmodara,[126] Dattarāma,[127] *Dhanvantari*,[128] Gaṇeśaśarman,[129] Gopāladāsa Vādīndra's *Cikitsāsāra*,[130] Govindadāsa,[131] Gulrājśarmamiśra's commentary on the *Āyurvedaprakāśa*,[132] Haṃsarāja,[133] Hārāṇacandra,[134] Harṣakīrti,[135] Hemādri's *Lakṣaṇaprakāśa*,[136] Jayaratna,[137] the *Kairalī* commentary on the Uttarasthāna of the *Aṣṭāṅgahṛdayasaṃhitā*,[138] Kalyāṇadāsa,[139] Kāśīrāma,[140] Mādhava Upādhyāya,[141] Mānakavi,[142] Meghamuni,[143] Moreśvara,[144] Narahari,[145] Niścalakara,[146] Raghunātha Paṇḍita,[147] Rājeśvaradatta Miśra,[148] Rāmacandra,[149] Raṅgajyotirvid,[150] the *Rasabhūpati*,[151] the *Rasaratnasamuccaya*,[152] the *Ratnākarauṣadhayoga*,[153] the *Sahasrayoga*,[154] the *Śāligrāmanighaṇṭu*,[155] Śivadāsasena,[156] Śivadatta,[157] Soḍhala,[158] Śrīdāsapaṇḍita,[159] Śrīkaṇṭhadatta,[160] Svāmikumāra,[161] Ṭoḍara,[162] Trimalla,[163] Vāgbhaṭa,[164] the *Vaidyacintāmaṇi*,[165] the *Vaidyaśāstrapravartakācāryanāmasamuccaya*,[166] Vaṅgasena,[167] Vāsudeva,[168] Vinodalālasena,[169] the *Vīrasiṃhāvaloka*,[170] Viṣṇudeva's *Rasarājalakṣmī*,[171] Vṛnda,[172] and the *Yogaratnākara*.[173]

Several versions of a medical work associated with the name of Ātreya have been current, as appears from quotations from *Bṛhadātreya*, *Kaniṣṭhātreya*, *Madhyamātreya*, and *Vṛddhātreya*.[174]

The *Bṛhadātreya* is quoted by Ṭoḍara[175] and Trimalla;[176] *Kaniṣṭhātreya*,[177] *Madhyamātreya*,[178] and *Vṛddhātreya*[179] are quoted by Ṭoḍara.

These works must be regarded, at least partially, as versions of the *Hārītasaṃhitā* = *Ātreyasaṃhitā*, since some of the quotations are traceable.

An *Ātreyanidāna* is mentioned in Lakṣmīkuśala's *Vaidyakasāraratnaprakāśa*.

Quotations from Hārīta and Ātreya that have been traced or that are related to verses occurring in the *Hārītasaṃhitā* are found in the *Amṛtasāgara*, the *Bhāvaprakāśa* and its glosses, Cakrapāṇidatta's commentary on the *Carakasaṃhitā*, Cakrapāṇidatta's *Cikitsāsaṃgraha*, Dattarāma's *Caryācandrodaya*, the *Śāligrāmanighaṇṭubhūṣaṇa* of the *Bṛhannighaṇṭuratnākara*, Śrīkaṇṭhadatta's commentary on Vṛnda's *Siddhayoga*, and Ṭoḍara's *Āyurvedasaukhya*.[180]

Ṭoḍara's *Āyurvedasaukhya* contains a verse attributed to Atri that forms part of the

Hārītasaṃhitā.[181]

Vāsudeva's *Vāsudevānubhava* mentions among its sources Atri, *Bṛhadatri* and *Laghvatri*, which may be related to the works called *Ātreyasaṃhitā*, *Bṛhadātreya* and *Kaniṣṭhātreya*, unless they are versions of the *Atrismṛti.*[182]

An *Atrisaṃhitā* was among the sources of Baladeva Prasāda Miśra's *Āyurvedacintāmaṇi*, Jīvānandavidyāsāgara's commentary on the *Rasendrasārasaṃgraha*, Raṅgajyotirvid's *Vicārasudhākara*, and Āśubodha and Nityabodha Senagupta's commentary on the *Rasaratnasamuccaya.*[183]

Some verses of the edited text of the *Hārītasaṃhitā* are also found[184] in the *Bhāvaprakāśa*,[185] *Cakradatta*,[186] *Carakasaṃhitā*,[187] *Siddhasāra*,[188] *Siddhayoga*,[189] and *Suśrutasaṃhitā.*[190] [191]

Special features[192]

Although the medical science is said to be eightfold (aṣṭadhā), the divisions enumerated and defined are nine in number: śalya or śalyoddharaṇaka, śālākya, kāyacikitsita, agada, bālacikitsita, viṣatantra, bhūtavidyā, vājīkaraṇa, and rasāyana, while, moreover, a tenth division, called upāṅga, is added to the series; śalya heads the list, in spite of the fact that the *Hārītasaṃhitā* is mainly devoted to kāyacikitsā; agada deals with diseases of rectum, anal region and bladder (gudāmaya, bastiruj), to be treated with the three varieties of clysters (ūhaka = nirūha, āsthāpana and anuvāsana); this acceptation of the term agada is peculiar to the *Hārītasaṃhitā*;[193] bālacikitsita has the same range as the division usually called kaumārabhṛtya; the definition of bhūtavidyā refers to possession by demoniacal beings and does not mention unmāda, nor apasmāra; the supplementary aṅga (upāṅga) is characterized by the use of cautery (dagdha) in the treatment of bruises, wounds, fractures, etc. (I.2). The seasons are described in the following order: rainy season, autumn, winter, cool season, spring, and summer (I.4.19–66).[194] The life cycle of human beings in general is divided into four stages (I.5.1–14).[195] The characteristics of several types of wind are enumerated, according to the points of the compass from which they are blowing, and dependent on contrivances producing a flow of air (I.5.24–42). A disease thought to be caused by a strong wind and appearing in both human beings living together in a settlement and domestic animals, is called yakṣman in humans, tilaka in cattle, pāvaka in elephants, and vedya in horses (I.5.48). Pitta is the doṣa to be protected in particular in elephants, kapha in horses, and vāyu in human beings (I.5.49). The chapter on the tastes (I.6) employs the terms lavaṇa and kṣāra as synonyms. Each of the three doṣas is thought to be provoked or pacified by two tastes (I.5.2–4).

The chapter on the various kinds of water and their properties (I.7) deals with the subject more extensively than the *Caraka-* and *Suśrutasaṃhitā*;[196] it describes the properties of rainwater falling in particular months (I.7.18–24); the classification of the kinds of water resembles the one found in the *Suśrutasamhitā*, but the *Hārītasaṃhitā* adds an eighth type of dhāra water, vāpyudbhava,[197] to the seven of Suśruta (I.7.35); the verses on the water from rivers (I.7.45–65) mention a large number of names and end with the claim that the total number of rivers is 2,100. The rivers flowing to

the Northeast are Gaṅgā, Sarasvatī,[198] Śoṇā,[199] Yamunā, Sarayū,[200] Śacī, Veṇā,[201] Śarāvatī,[202] and Nīlā; the rivers flowing to the eastern ocean are Carmaṇvatī,[203] Vetravatī,[204] Pārāvatī,[205] Kṣiprā,[206] Mahāpadī, Pītā, Mutsakā, Manasvinī, Śevatī, Śaivalinī, and Sindhu; flowing to the West are the rivers Tāpī,[207] Tāpā, Golomī, Gomatī,[208] Salilā, Mahī,[209] Sarasvatī, and Narmadā;[210] flowing to the western ocean are the rivers Gautamī,[211] Pūrṇā,[212] Payasvinī,[213] Vetrā, Praṇītā,[214] Varānanā, Droṇā, and Govardhanī; the rivers flowing to the South are Kāverī,[215] Vīrakāntā, Bhīmā,[216] Payasvinī, Vibhāvarī, Viśālā, Govindī, Madanasvasā, and Pārvatī.[217]

The chapter on milk and dairy produce (I.8) has some verses (I.8.2–12) on the physiology of lactation;[218] the qualities of breastmilk depend on the colour of the skin of the mother or wet-nurse (I.8.14–15ab);[219] the qualities of the milk of cows of diverse colours are described (I.8.16); the properties of dadhi (thick sour milk), produced in each of the six seasons, are enumerated (I.8.39–44).[220] The chapter on urines has some verses on the properties of the urine of a bull and ox (I.9.13–14). The chapter on kāñjika (I.11) gives details on this fluid according to the kind of grain used for its preparation (yava, godhūma, yugandhara).[221] The chapter on grain lists eighteen varieties of rice, the names of which differ considerably from those met with in the *Carakasaṃhitā*, *Suśrutasaṃhitā* and *Aṣṭāṅgahṛdayasaṃhitā* (I.15.1–2); the group called kṣudradhānya consists of kaṇḍū, kapikacchurā,[222] kodrava, markaṭī,[223] and śyāmāka (I.15.14).[224] Four categories of vegetables are distinguished: pattra (leaves), puṣpa (flowers), phala (fruits), and kanda (roots, rhizomes, bulbs) (I.16.1). Three kinds of honey are distinguished: bhrāmara, sāragha and kṣaudra, produced by bees making their nests in trees, shrubs and in the cavities of trees respectively (I.18). Alcoholic drinks are divided into four types: gauḍī, produced from guḍa (treacle), mādhvī, produced from honey, paiṣṭī, produced from grain, and niryāsā, produced from the juice of plants; twelve varieties are distinguished: three varieties of gauḍī: sīdhu, gauḍī and matsyaṇḍī, three varieties of mādhvī: mādhvīka, madhuka and mādhva, three varieties of paiṣṭī: paiṣṭī, ariṣṭa and jāta, three types of niryāsā, produced from the juice of grapes and the plants called tāḍa and māḍa (I.9.1–4). Animals are divided into the following categories: śūlin (tusked animals),[225] śṛṅgin (animals with horns), nakhin (animals with claws),[226] śvāpada (animals of prey), pakṣin (birds), matsya (fishes), and sarīsṛpa (creeping animals) (I.20.1); other categories are: jalecara (a group of aquatic animals), jalādhāra (another group of aquatic animals), grāmanivāsin (domestic animals), and araṇyanivāsin (wild animals) (I.20.2), and: ānūpa, jāṅgala, and sādhāraṇa (I.20.2).

A feature peculiar to the *Hārītasaṃhitā* is the attention given to the influence of the nakṣatras on the course of a disease. Chapter six of the Ariṣṭasthāna is entirely (fifty-two verses) devoted to this subject, neglected in most of the āyurvedic treatises.[227] Chapter seven describes an elaborate sacrificial ritual (homavidhi), to be performed on behalf of a patient; bundles of firewood (samidh), derived from many different trees, are employed in it.

The first chapter of the Cikitsitasthāna describes the pathogenesis of fever in a way that differs from what is found in other treatises (III.1.1–3).[228] A series of verses (1. 4–11ab) describe chains of disorders, beginning with fever, resulting the one from the

other, and ending in death.[229] Eleven dreadful (mahāghora) diseases are enumerated (1.11cd–12).[230] The number of days required for each doṣa and group of doṣas to reach maturation (pāka) is specified (1.14–17ab). The average duration of a fever is said to be seven days (1.18cd–19). The choice treatment of fevers, consisting of fasting and related procedures (laṅghana), is described in detail (1.21–33); six varieties are distinguished (1.34);[231] laṅghana procedures should be employed for six days in vāta fevers, three days in pitta fevers, seven days in kapha fevers, while saṃnipāta fevers require ten days and reach maturation on the fifteenth day (1.36–37). Blood is the foremost doṣa in fevers occurring in children; in the sixteenth year of life the three doṣas (vāta, pitta, kapha) have become involved in fevers; from the twenty-fifth year onwards fevers are of a sāṃnipātika type (1.38cd–39).[232]

A kvātha is thought to possess six properties (1.41); these should be taken into consideration with regard to the time of its application (1.42–46). Seven types of kvātha are described, which have different actions related to their degree of dilution or concentration (1.47–52ab). Several rules are given with regard to the administration of a kvātha (1.59–64 and 72–74).

Chapter two begins with verses on the physician, classification of diseases, etc. (2.1–25). Diseases are divided into three broad categories: karmaja, doṣaja and sahaja (2.23–25).[233] The remaining part of the chapter is devoted to fevers and their treatment. The names of fever and its characteristics in various living beings are enumerated (2.26–35).[234] The exterior of fever (2.36–38)[235] and its mythical origin are described. Thirteen types of sudation are listed (2.142–145).[236] Four varieties of viṣamajvara are distinguished: ekāhika,[237] dvyāhika,[238] tryāhika or tṛtīyaka, and cāturthaka (2.187–194); an irregular (viṣama) fever is a fever that affects one of the elements of the body in particular: velājvara[239] affects the rasa, ekāhika the blood, tṛtīyaka the muscular tissue, cāturthaka the bone tissue, while the fever called jīrṇa affects all the elements (2.195).[240] Patients suffering from fever are advised to pay homage to Hanumant[241] and to recite a mantra addressed to Sugrīva[242] (2.218–219).

Fever, seen as an anthropomorphic figure, manifests itself fourfold and causes four types of fever: raudrajvara, when appearing like a brāhmaṇa, mahāraudra or māhendrajvara in its kṣatriya form, jvareśvara in its vaiśya, and kālajvara in its śūdra form; the symptoms of these fevers are described, together with their, mainly religious, treatment (2.220–234).[243]

Chapter three, devoted to diarrhoea, begins with the classification of remedial measures, divided into two triads: doṣasaṃśama, dhātudūṣaṇa, and health-maintaining (used in svasthavṛtti),[244] daivapathāśraya, yuktipathāśraya, and sattvāvajaya (3.2–3).[245] Five varieties of diarrhoea (atisāra) are distinguished: caused by vāta, pitta, kapha, blood, and saṃnipāta.[246] Chapter three also deals with jvarātisāra (3.7–8, 11–15, 20–22).[247] The same chapter describes the four types of grahaṇī and their treatment (3.79–108).[248] A complication of grahaṇī is a disorder called the third type of gulma;[249] six varieties of it are distinguished: plīhan, yakṛt, jaṭhara, kaṇḍū, malabandha or aṣṭhīlā, and krimi (3.84–85).[250]

Chapter four describes five varieties of gulma, distinct according to their localization:[251] yakṛt in the cardiac region, aṣṭhīlā in the lateral parts of the abdomen, plīhan

in the middle of the abdomen, caṇḍavivṛddhaka in the region of the urinary bladder, and granthin in the umbilical region (4.2–4ab).[252] Gulma is said to be caused either by pitta and blood or by all three doṣas (4.8–9).[253] The same chapter is concerned with the treatment of viṣūcikā (4.27–38).

Chapter five describes parasites (krimi) and disorders caused by them.[254] Seven kinds of external and six kinds of internal parasites are distinguished; the latter are collectively called kiñcaka. The external worms are called kṛṣṇā yūkā (black louse), śvetā yūkā (white louse),[255] carmayūkikā,[256] bindukī,[257] matkuṇā,[258] śironivāsinī (the head louse), and yaṣṭikā.[259] The internal worms are called pṛthumuṇḍa,[260] kiñcukasaṃnibha,[261] dhānyāṅkuranibha,[262] sūkṣma, aṇu, and sūcīmukha.[263]

Chapter six discusses the digestive fire (agni) and its three disorders. A slow fire (mandāgni) is attributed to an excess of vāta and kapha or of kapha singly (6.3cd and 7), an intensely active fire (tīkṣṇāgni) to a deficiency of vāta and kapha (6.10).[264] The latter disorder gives rise to an even more intensely burning fire, called bhasmaka,[265] and a long series of diseases in its wake (6.11cd–13).[266] A few verses at the end of the chapter (6.32–36) are about the treatment of anorexia (arocaka), not discussed as a separate disease in the *Hārītasaṃhitā*.

Chapter seven is about colicky pains (śūla).[267] Ten types are described: three caused by one doṣa, three by a combination of two doṣas, one type accompanied by āma, one type devoid of āma, one arising from undigested food (ajīrṇānna), and one arising during the digestive process (pariṇāmaja).[268] Two types are added to this series: one arising after the intake of food (bhuktopari),[269] regarded as a variety of the kapha type, and one, arising after the digestion of the food, called pariṇāmaja again (7.13–16). A sāṃnipātika type is referred to in the verses on treatment (4.56–57).[270]

Chapter eight is concerned with pāṇḍuroga. Five types are distinguished: three caused by one doṣa, one by all three doṣas, and one called rūkṣaṇa (8.1–2); the rūkṣaṇa type is probably identical with the type arising from the eating of earth (8.11–14).[271]

Chapter nine deals with kṣaya (91–102) and rājayakṣman (9.103–133). Kṣaya (a deficiency of one or more of the bodily constituents) is said to be ultimately caused by evil actions committed in previous existences (9.1–4), although the immedicate causes of each type of kṣaya are separately listed. Ten types are distinguished: a deficient state of one of the three doṣas and of one of the seven bodily elements (9.5–7).[272] Specific prescriptions are given for each of these, to which are added a series of compound formulae.[273] The second part of the chapter describes the mythical origin of rājayakṣman, its immediate causes, symptoms, and treatment. A particular number of symptoms is not mentioned,[274] nor the involvement of the doṣas. Specific types of śoṣa (= kṣaya), comparable to those of the *Suśrutasaṃhitā*,[275] are not described, but the causes of these disorders are referred to as giving rise to rājayakṣman (10.103–111).

Chapter ten, about raktapitta, agrees remarkably well with the *Carakasaṃhitā* (Ci.4) in the description of the aetiology and symptomatology. Eighteen complications of this disease are listed (10.16–18).[276] Specific treatments are given for nosebleeds (10.35–41), bleeding from the mouth (10.42–50), raktātisāra (10.77–79), and bleeding from the female genitals (yonipravāha; 10.80–82).

Chapter eleven deals with arśas (haemorrhoids) and distinguishes five types,

caused by each of the three doṣas, all three doṣas, and blood, to which a sixth, congenital (sahaja) type is added.[277] Polypous growths, or warts, subsumed under arśas, are mentioned as occurring in the nasal cavities, ears, oral cavity, and corners of the eyes (11.19).[278]

Chapter twelve is concerned with cough (kāsa; 12.1–45) and vomiting (chardi; 12.46–76). Eight types of kāsa are described: three types caused by one doṣa, one type each by vāta and pitta, kapha and pitta, saṃnipāta, blood, and kṣaya; a traumatic (kṣataja) type is added to this series (12.5–8).[279] Vomiting is characterized as either snigdha or rūkṣa (12.56);[280] five types are mentioned, caused by vāta, pitta, kapha, saṃnipāta, and parasites (krimi).[281]

Chapter thirteen is about tṛṣṇā (thirst) and tāluśoṣa (desiccation of the palate). Eight types of thirst are mentioned: brought about by vāta, pitta, kapha, of traumatic origin (kṣataja), caused by kṣaya, ajīrṇa (indigestion), dry foods (rūkṣasevana), and fever (13.1–3); types added to this series are caused by saṃnipāta (13.7), atisāra, and śūla (13.11).[282] The therapy of tāluśoṣa is described (13.26–36), while its aetiology and symptoms are omitted.[283]

Chapter fourteen treats mūrchā (fainting) and some related disorders. The pathogenesis of this disease is described as an occlusion of the apertures (dvāra) of the five sets of twelve vessels (nāḍikā) of the five sense organs, resulting in a sudden loss of consciousness (saṃjñānāśa). Six types of the disorder, also called moha, are distinguished, caused by vāta, pitta, kapha, blood, trauma (abhighāta), and alcoholic drinks (madya) or poison (14.1–6).[284] Two more varieties, brought about by saṃnipāta and kṣaya, are referred to (14.13 and 15–16). Related disorders mentioned in this chapter are bhrama (giddiness), caused by pitta and vāta, tandrā, caused by vāta and kapha, and nidrā (sleepiness), caused by kapha, vāta and tamas (14–17).[285]

Chapter fifteen deals with nidrānāśa (insomnia).[286]

Chapter sixteen discusses disorders resulting from the abuse of alcohol (madātyaya; 16.1–12) and some related illnesses. Alcoholic drinks are considered to be beneficial in certain cases, whereas their abuse is scorned. Four varieties of madātyaya are acknowledged, associated with vāta, pitta, kapha, and saṃnipāta.[287] Disorders related to madātyaya and called mūrchā, moha or mada, caused by toxic plant products, are dealt with at the end of the chapter.[288] Plants yielding these toxic substances are halinī,[289] karavīra,[290] madayantikā,[291] mohinī,[292] pūga,[293] and unspecified bulbous plants (16.13–18). Worthy of attention is the absence of opium.

Chapter seventeen is about dāha (a burning sensation).[294] A separate chapter on this disorder, absent from the *Carakasaṃhitā*, *Suśrutasaṃhitā* and Vāgbhaṭa's works, forms part of the *Mādhavanidāna* (19), where it also follows upon the chapter on madātyaya. The types of dāha, described in the *Suśrutasaṃhitā*, are absent from the *Hārītasaṃhitā*.[295]

Chapter eighteen describes apasmāra (epilepsy) and its treatment. The verses on its pathogenesis (saṃprāpti), not very clear, ascribe it to the actions of a series of excited doṣas, namely vāta, pitta, kapha, udāna, and prāṇa (18.1–5). Types are not distinguished.[296]

Chapter nineteen is about unmāda (insanity). The types mentioned are those caused by one doṣa, a combination of two doṣas, the three doṣas, and poison (19.1–2);[297] descriptions of these types are absent. Intense emotions are recognized as factors contributing to the appearance of mental disorders (19.3–6).[298] Possession is not referred to at all in this short chapter, exclusively devoted to insanity brought about by natural causes.[299] The therapy of unmāda is said to be the same as that of apasmāra; the chapter on bhūtavidyā (III.55) is referred to for specific treatments (19.7).

Chapter twenty is devoted to vāta diseases. The total number of these diseases is said to be eighty-four, in contrast with the usual number of eighty (20.1).[300] The five kinds of vāta are mentioned, followed by lists of the disorders they give rise to. Sixteen disorders affecting the head, caused by excitement of prāṇa, accompanied by pitta, are enumerated: śiraḥśūla, karṇaśūla, śaṅkhaśūla, asṛggada, ardhaśīrṣavikāra, dinavṛddhisamudbhava(roga), nāsikopadrava, manyāstambha, hanugraha, jihvāstambha, tāluśūla, tamaka, bhrama, tandrā, śvāsa, and galaroga (20.4–6ab).[301] Udāna, accompanied by kapha, gives rise to the following sixteen disorders: hikkā, śvāsa, pariśvāsa,[302] kāsa, śoṣārti, ghaṇṭikā,[303] hṛllāsa, hṛcchūla, yakṛt, vātavami,[304] kṣavathu, jṛmbhaṇa, vaisvarya,[305] pīnasa, aruci, and pratiśyāya (20.7–9).[306] Vyāna causes disorders affecting the whole body (sarvāṅgaka), the symptoms of which vary according to the bodily element chiefly affected (20.10–14); the disorders caused by samāna are summarily described (20.15–17); these two groups are listed later on (20.31–34).

The chapter proceeds with the description of ākṣepaka, caused by vyāna,[307] and apatantraka;[308] the latter disease, called apratānaka by others,[309] presents a number of varieties, called daṇḍāpratānaka,[310] snāyupratānaka,[311] pratānaka,[312] abhighātasamudbhava,[313] and asthisandhisaṃśuṣkaka[314] (20.18–26ab). The verses that follow are about four diseases: ekāṅgika,[315] pakṣaghāta,[316] tūnī, and pratitūnī[317] (20.26cd–30). The description of the disorders caused by the five kinds of vāta is resumed with a reference to twice sixteen of them brought about by vyāna, some of which are mentioned: hṛtstambha, pṛṣṭhastambha, ūrustambha, and gṛdhrasī (20.31–32). The sixteen disorders caused by samāna are: śūla, gulma, udāvarta, ādhmāna, udāvarta again, pariṇāma, viṣamāgni, ajīrṇa, vātagulmaka, parikledī, rasaśeṣa, rasa, malavālaka, bandhī, bhedī, and vilāsī (20.33–34).[318] The sixteen disorders caused by apāna are: bhagandara, bastiśūla, meha, arśas, atikoṭhaka, the two liṅgadoṣas, gudabhraṃśa, gudaśūlaka, mūtrarodha, and viḍrodha (20.35–36).[319] Some disorders arising from a combination of doṣas are added: vāta and pitta together bring about dāha, saṃtāpa, śoṣa, and mūrchā; vāta and kapha together produce śaitya, śopha, aruci, and jāḍya (20.37–38ab).

The last vāta disease described is ardita (facial paresis); three types are distinguished, brought about by vāta, vāta and pitta, vāta and kapha.[320]

Many vāta diseases which are described by Caraka, Suśruta and Vāgbhaṭa are not characterized in this chapter of the *Hārītasaṃhitā*.[321]

Chapter twenty-one, devoted to āmavāta, is noteworthy, since the early saṃhitās do not deal with this disease. The *Mādhavanidāna* describes its aetiology and symptomatology in a separate chapter,[322] the *Mādhavacikitsā*[323] and later treatises describe its treatment. The *Hārītasaṃhitā* distinguishes four types of āmavāta: viṣṭambhin, gulmakṛt or gulmāma, snehin āmavāta, and pakvāma, to which a fifth type,

sarvāṅgāma, is added (21.5–21).[324]

Chapter twenty-two is about gṛdhrasī (sciatica), a disease usually described among the vāta diseases.[325] The *Hārītasaṃhitā* may be the only treatise devoting a separate chapter to it. The varieties described and their doṣic involvement are remarkable too. The variety called koṣṭhaśīrṣikā, brought about by vāta and blood, presents a painful swelling of the knees;[326] the second variety is gṛdhrasī sensu stricto; the third variety, called pādaharṣa,[327] is either connected with kapha and vāta or with pitta and vāta (22. 1–6ab).

Chapter twenty-three describes vātarakta and its treatment. Special types and doṣic varieties are not distinguished.[328]

Chapter twenty-four, on amlapitta, is of importance in acknowledging this disease as a distinct entity. Caraka, Suśruta and Vāgbhaṭa do not regard amlapitta as a separate disorder, but it is described as such in the *Kāśyapasaṃhitā* and *Mādhavanidāna*,[329] while the *Mādhavacikitsā* has a chapter on its treatment. *Hārītasaṃhitā* and *Mādhavanidāna* distinguish an upwards and a downwards moving type; the doṣic varieties of the *Mādhavanidāna* are not mentioned in the *Hārītasaṃhitā*.

Chapter twenty-five, on śopha (swelling, especially of inflammatory origin), does not present a clear classification. Types caused by one of more doṣas and by blood are mentioned, as well as types caused by kṣaya, kṣata (trauma), and other disorders; varieties affecting the upper, middle and lower part of the body, or the whole body, are referred to (25.1–10).[330]

Chapter twenty-six is the second chapter of the Cikitsitasthāna on gulma, a disease also discussed in chapter four. Five doṣic varieties are described, caused by vāta, pitta and kapha singly, pitta and kapha together, and saṃnipāta (26.1–8).[331] A type caused by blood and occurring exclusively in women, described by Caraka, Suśruta and Vāgbhaṭa, is referred to in a prescription (26.71–72) that does not make clear whether it was thought to be a gynaecological disorder. A type due to blood is moreover mentioned, together with a gulma of traumatic origin (kṣataja), in some stanzas on wholesome foods and drinks (pathya) in cases of gulma. Verses on the treatment of śopha are included in this chapter (26.62–70).

Chapter twenty-seven describes jalodara (ascites). Varieties are not mentioned, nor the involvement of the doṣas in this disease. The group of disorders called udara, to which jalodara belongs in āyurvedic literature,[332] is absent from the *Hārītasaṃhitā*. The surgical treatment of jalodara by means of a tube (jalanāḍī), through which the fluid accumulated in the abdominal cavity can be removed, is known to the *Hārītasaṃhitā* and considered to be a dangerous procedure (27.4–9).[333]

Chapter twenty-eight, on prameha (urinary disorders), agrees with the other major treatises in mentioning twenty types of this disease (28.1).[334] In contrast with the early saṃhitās, the *Hārītasaṃhitā* does not specify which types are associated with each of the three doṣas; it refers to involvement of pitta and kapha, but omits vāta in the aetiology of prameha. Not all the twenty types of prameha are characterized or mentioned in prescriptions. Types discussed in the chapter are ghṛta- or sarpir-, jala-, khaṭikā-, lavaṇa-, madhu-, pūya-, rakta- or rudhira-, rasa-, śarkarā-, śukra-, takra-, and vasāmeha. Names peculiar to the *Hārītasaṃhitā* are khaṭikāmeha,[335] pūyameha,[336] rasameha, and

takrameha.[337] Unusual too is the term mūtraprameha (28.45).[338] The chapter also describes the treatment of the pramehapiṭikās (28.26–35ab), without dealing with their names and characteristics;[339] disorders mentioned in these verses are somapāka (28. 33) and mehapāka (28.35ab).[340]

Chapter twenty-nine describes the treatment of mūtrakṛcchra without giving attention to its aetiology and symptoms. Chapter thirty contains verses on the therapy of mūtra(ni)rodha (retention of urine), the nidāna of mūtrakṛcchra, and the treatment of mūtrakṛcchra and mūtra(ni)rodha.[341]

Chapter thirty-one describes aśmarī (vesical calculi) and its treatment. Some varieties are described without clearly delineating their origins and symptoms. Abnormal behaviour during sexual intercourse appears to be an important aetiological factor. Vāta and blood are involved too.[342] Śarkarā (urinary gravel) is referred to as a curable disorder of childhood.[343] Surgical treatment is said to be described in the ghṛtādhyāya of the Sūtrasthāna.[344]

Chapter thirty-two is about vṛṣaṇavṛddhi or aṇḍavṛddhi (swelling of the scrotum). Four doṣic types are mentioned, caused by vāta, pitta, kapha, and saṃnipāta.[345]

Chapter thirty-three on visarpa (erysipelas) distinguishes eight types, originating from one doṣa, two doṣas, blood, and saṃnipāta.[346] The types connected with two doṣas, called ājñeya, granthika and kardama, are caused by vāta and pitta, pitta and kapha, vāta and kapha respectively.[347]

Chapter thirty-four is remarkable in describing a group of four diseases, collectively called upasarga, which means that they are regarded as infectious.[348] Vāta and blood are thought to be involved in the causation of these disorders. The group consists of kṣudraka, antaka, ghora, and masūrikā. Kṣudraka, caused by pitta and blood, occurs in the season of spring and is characterized by pustules which resemble burns (agnidagdhavat). Masūrikā is a disease with pustules which are round (vartula), like masūrikā (lentils); the pustules become festering and disappear within a short time (34. 1–6). The verses on the treatment of these diseases begin with the advice to employ secret protective rituals (guptākāra rakṣāyogavidhāna) and to avoid contact with people belonging to the lower classes (34.7). Prescriptions against kṣudraka and ghora follow (34.8–17). The chapter proceeds with the description of an infectious fever (upasargajvara) with haematuria (raktamūtra) and diarrhoea (34.18–21). The chapter ends with counsels suitable in all cases of upasarga, now called kṣudrikā, and with rituals to be performed after recovery (34.22–26).

Chapter thirty-five, on ulcers (vraṇa), describes types associated with one doṣa, two doṣas, and saṃnipāta.[349] Nāḍīvraṇas (fistules) are referred to (35.1–9).[350] The verses on treatment prescribe ointments and lotions; surgical treatment is a neglected topic (35.10–27).

Chapter thirty-six describes ślīpada (elephantiasis) and its four types, connected with vāta, pitta, kapha, and saṃnipāta.[351] A type affecting the fatty tissue (medas) in particular is called vālmīka (36.1–4ab).[352] The treatment of ślīpada is the same as that of vraṇa. The presence of a separate chapter on ślīpada in the *Hārītasaṃhitā* is a remarkable feature, in line with the *Mādhavanidāna*, which also deals with it separately.

Chapter thirty-seven may be unique in āyurvedic literature in being entirely de-

voted to arbuda, a local swelling of relatively large size.[353] Four varieties are described, arising from vāta, pitta, kapha, and saṃnipāta.[354]

Chapter thirty-eight describes two diseases, gaṇḍamālā and lūtā(vraṇa).[355] Four varieties of gaṇḍamālā are distinguished, brought about by vāta, pitta, kapha, and saṃnipāta (38.1–3). This is a unique feature, since gaṇḍamālā is not divided into a number of varieties in any other medical treatise.[356] The disorder called lūtā is described as a deep ulcer (vraṇa) with a purulent discharge (pūyavisrāva) (38.14–16), while some small animal, the lūtā, is supposed to live inside (38.17–20).[357] Seven kinds of lūtā are distinguished and characterized with regard to their form, colour and location: rohiṇī, viśadā, vijayā, (vi)bhedinī, kāntārī, vajrapuṣpā, and indrāyudhā (38.4–16). The treatment of lūtā(vraṇa) aims at curing the ulcer and killing the animal inside (38.17–23). The therapy of gaṇḍamālā is referred to in passing, together with an otherwise unknown disease called prakaṇṭaka (38.18).

Chapter thirty-nine is devoted to kuṣṭha. As usual in āyurvedic treatises, eighteen types are referred to (39.3), but these are not divided into two large groups.[358] The list with the types of kuṣṭha comprises only fourteen items: kapālaka,[359] udumbara, dadrumaṇḍala(ka), visarpaka, hastibala,[360] kiṇa, gojihvaka, (lohita)maṇḍala, vaipādika,[361] carmadala, visphoṭaka, bahuvraṇa, kaṇḍū, and vicarcī[362] (39.5–6). Two more types are referred to in the verses on treatment: citrakuṣṭha (39.59) or citraka (39.54), and pāmā (39.47 and 49); the two remaining types are not mentioned in the chapter. Hārīta's visarpaka, hastibala or gajacarman, kiṇa, gojihvaka and kaṇḍū do not occur in the lists found in other works; the nature of visarpaka remains unclear, but gajajarman is the equivalent of what is commonly called carmakuṣṭha,[363] kiṇa of kiṭima,[364] gojihvaka of ṛṣyajihvaka,[365] bahuvraṇa of śatāruṣka,[366] kaṇḍū of alasaka.[367] Kuṣṭha types mentioned in many āyurvedic texts and absent from the *Hārītasaṃhitā* are ekakuṣṭha, kākaṇaka, puṇḍarīka, rakasā, sidhma, sthūlāruṣka, and śvitra.[368]

Twelve among the fourteen types listed in the *Hārītasaṃhitā* are characterized (39. 7–12); the characteristics of kiṇa and carmadala are omitted. Signs brought about by the doṣas are enumerated, as well as the symptoms when one of the seven bodily elements is chiefly affected (39.13–18). The remaining part of the chapter is concerned with treatment.

Chapter forty is the first of a series of chapters belonging to the division of āyurveda called śālākya and describes diseases of the head (śiroroga). Types distinguished are those caused by vāta, pitta, kapha, blood (rakta), vāta and rakta, saṃnipāta, and parasites (krimi);[369] pitta is thought to be the chief causative agent. Additional diseases of the head are ardhaśīrṣa[370] and dinavṛddhikara[371] (40.1–3). Absent are anantavāta[372] and śaṅkhaka.[373] Upaśīrṣaka[374] is mentioned in the verses on treatment.

Chapter forty-one describes a disease that is peculiar to the *Hārītasaṃhitā*. This disease, called bhrūdoṣa, is caused by excessive reading and looking at minute or distant objects. Vāta, pitta and blood are involved in it. The disorder is characterized by pains in the region of the eyebrows (bhrū) and eye complaints (41.1–3).

Chapter forty-two is about diseases of the nose (nāsāroga), caused by one of the doṣas, blood, and parasites (krimi).[375]

Chapter forty-three constitutes the only example known in āyurvedic literature of a chapter entirely devoted to indralupta (baldness), also called khallāṭaka.[376] Five varieties are mentioned, caused by vāta, pitta, kapha, blood, and saṃnipāta.[377]

Chapter forty-four is concerned with diseases of the ears (karṇaroga). Types distinguished are those caused by one of the three doṣas, a combination of two doṣas, all three doṣas, parasites (krimi), ulcers (vraṇa), a trauma (abhighāta), a wound (kṣata), and lūtidoṣa. A type occurring in childhood is mentioned as well (44.1–6). Karṇaśūla is referred to in the verses on treatment (44.11).[378]

Chapter forty-five deals with eye diseases (netraroga), distinguished into types arising from vāta, pitta, kapha, blood, two doṣas, and all three doṣas (45.1–5).[379] Four types of inflammation (puṣpa) are described, caused by vāta, pitta, kapha, and saṃnipāta (45. 14–18). Specific eye diseases mentioned in passing are timira, kaṇḍū, paṭala, arbuda, rātryandhya (45.20), kāca, and nīlikā (45.21),[380] as well as disorders caused by wounds (kṣata), a trauma (abhighāta), grief, and burns (45.21). Five varieties of cataract (paṭala) are characterized, associated with vāta, pitta, kapha, blood, and saṃnipāta.[381]

Chapter forty-six, the last one on śālākya, describes the diseases of the oral cavity (mukharoga). Diseases of the lips (oṣṭharoga) are attributed to vāta, pitta and blood (46.1–4),[382] diseases of the teeth to vāta, pitta, kapha, blood and parasites (46.5–8),[383] diseases of the tongue to vāta, pitta, kapha, blood, and saṃnipāta (46.17–25),[384] a disease of the uvula or larynx (ghaṇṭikā) to kapha (46.26), a disease of the root of the tongue and pharynx (kaṇṭhasandhi) to kapha and blood (46.27–28ab); bleeding from a granthi in the throat is also referred to (46.28cd–30ab).[385] The chapter ends with a description of galaśuṇḍikā and its treatment (46.33–39).[386]

Chapter forty-seven is about vājīkaraṇa (aphrodisiacs). Several types of klaibya (impotence) are described without an adequate characterization. Types mentioned are those caused by suppression of the sexual urge (nirodha), excessive intercourse (ativyavāya), old age (vayas), mental disorders (the mānasa type), deficiency of the semen (retaḥkṣaya), and a constitutional abnormality (sahaja).[387]

Chapter forty-eight, the first of a series on gynaecology and obstetrics,[388] deals with infertility (vandhyātva) in women. Six types are distinguished: one type caused by intercourse before puberty, four types called kākavandhyā, anapatyā, garbhasrāvī, and mṛtavatsā, and one type caused by weakness (balakṣaya, dhātukṣaya) (48.1–8).[389] Characteristics of these types are not given.[390] Doṣic types of infertility are also described (48.13–25).[391]

Chapter forty-nine describes dietary rules during the ten months of pregnancy (garbhopacāra)[392] and the handling of the longings of pregnant women (dohada).[393]

Chapter fifty is about the treatment of abortion, immature and premature birth (calitagarbha), which may occur during the first to eighth months of pregnancy. Chapter fifty-one describes the treatment of eight disorders occurring during pregnancy: hṛllāsa (nausea), chardi (vomiting), śoṣa (emaciation), jvara, śotha, aruci, vivarṇatva (an abnormal colour of the skin), and atīsāra (51.1).[394] Additional disorders mentioned are vibandha, vidradhi, mūtrarodha (51.10–11), and garbhacāla (abortion) (51.12).

Chapter fifty-two is concerned with mūḍhagarbha (malposition of the foetus) (51. 5–8)[395] and mṛtagarbha (death of the foetus) (51.9–10).[396] Varieties of mūḍhagarbha associated with one, two and three doṣas are described (52.1–8), as well as disorders

caused by blood and pitta (52.15). Mūḍhagarba is treated with drugs and by means of surgical procedures (52.11–17).[397] The chapter contains some prescriptions assuring a safe delivery (52.18–21),[398] and two mantras having the same end in view (52.22–23 and 26–28); a yantra is also described (52.24–25).[399] One of the mantras refers to a Rākṣasī, called Surasā, living in the Himālayas, the sound of whose ankle bells (nūpura) guarantees an uncomplicated parturition.

Chapter fifty-three describes the regimen of a woman in childbed (sūtikopacāra);[400] some rituals to be performed on behalf of the child are also mentioned: jātaka (= jātakarman),[401] nāmakarman,[402] karṇavedhana,[403] vastrabandha,[404] and vivāha (the marriage ceremonies) (53.6–7).[405]

Chapter fifty-four deals with children's diseases (bālaroga). The child's health may be affected by five disorders of the breastmilk (kṣīradoṣa): ghana-, uṣṇa-, amla-, alpa-, and kṣārakṣīra (54.1–7).[406] One of these, ghanakṣīra, may give rise to the disease called utphullikā or utphullakukṣitā (54.3 and 9–13).[407] The chapter proceeds with verses on a long series of ailments that may occur in children and their treatment (54.14–30). The last part of the chapter describes disorders caused by the attacks of female demons (Pūtanā) and the appropriate rituals to appease them (54.31–54).[408] The verses on this subject, which may be quoted from a *Kaumāratantra*, mention two series of eight of these malignant beings, who seize a child on the first to eighth day of its life. Their names are Lohitā, Revatī, Dhvāṅkṣī or Vāyasī, Kumārī, Śākunī, Śivā, Ūrdhvakeśī, and Senā, or Rohiṇī, Vijayā, Kālī, Kṛttikā, Ḍākinī,[409] Niśā, Bhūtakeśī, and Kṛśāṅgī.[410] The second series of names is absent from the verses on treatment.

Chapter fifty-five is concerned with bhūtavidyā (demonology)[411] and describes malignant beings (graha) able to cause possession syndromes (āveśa). Ten of these beings,[412] called grahanāyaka, are mentioned, together with the symptoms, both physical and mental, they bring about (55.2–18): Aindra, Āgneya, Yama, Nairṛta, Vāruṇa, Māruta, Kubera or Yakṣarāj, Aiśānya, Grahaka, and Paiśācika. The treatment of the disorders caused by these grahas is of a mixed character and consists of drugs, rituals, and mantras (55.19–28).

Poisons and the treatment of poisoning (viṣatantra) constitute the subject of chapter fifty-six. Eight kinds of poison of vegetable origin are described: śṛṅgika, vatsanābha, śārṅgavera or śārṅgavairika, dāraka, kālakūṭa, śaṅkha, satsukanduka, and hālāhala, which can be distinguished by their colour (56.1–5ab).[413] The treatment of poisoning consists of the administration of drugs, accompanied by mantras (56.5cd–17). Eight types of poisonous animals are listed, together with the symptoms caused by their bites: darvīkara, maṇḍalin, rājīmant, guṇḍasa, vṛścika, goraka, khaṇḍabinduka, and a group consisting of alarka, mūṣa and mārjāra (56.18–24). The treatment is of a composite character again (56.25–31).[414]

Chapter fifty-seven deals with surgical subjects and describes wounds and fractures, together with their treatment (57.1–13). Eight types of trauma are distinguished: chinna, bhinna, bhagna, ghṛṣṭa, piṣṭa, āsphālita, samprahāra, and saṃghāta.[415] The removal of foreign bodies (śalyoddhāra) is the next subject (57.14–28). Two sets of twelve surgical instruments are enumerated. The twelve blunt instruments (yantra) are: prabandha (bandages), godhāmukha,[416] vajramukha,[417] saṃdaṃśa,[418] cakrākṛti,[419] kaṅkapāda,[420] ānaka,[421] śṛṅgaka,[422] kuṇḍala,[423] śrīvatsa,[424] sauvatsika,[425] and pañcavaktra;[426] the twelve sharp instruments (śastra) are: ardhacandra,[427] vrīhimukha,[428] kaṅkapattra,[429] kuṭhārikā,[430] karavīrakapattra,[431] śalākākārapattraka,[432] baḍiśa,[433] gṛdhrapāda,[434] śūlin,[435] and ghanamudgara[436] (57.16–20).[437] The remaining part of the chapter (57.29–46) is about the treatment of fractures (bhagna) and wounds.

Chapter fifty-eight describes burns caused by cauterization (agnidagdha) and their treatment. Four types are distinguished: īṣaddagdha, madhyadagdha, atidagdha, and samyagdagdha (58.1–5ab).[438] The chapter ends with a verse on the treatment of a complication (upaghāta) resulting from the injudicious employment of smoking (dhūmapāna) for medicinal purposes.

Chapter one of the Sūtrasthāna is on weights and measures (tulāmāna). Two systems are described; the first system resembles the kāliṅga, the second the māgadhamāna.[439] The average quantities to be prescribed of a series of medicinal substances are mentioned.

Chapter two is about the different types of medicated oils and their indications (tailapākavidhi). Four types of preparation are distinguished: khara-, cikkaṇa-, madhya-, and viśoṣipāka.[440]

Chapter three is about the application of medicated clysters (nirūhabastikarman).[441]

Chapter four, about sudation (svedana) and its indications, mentions seven types: loṣṭa-, bāṣpa-,[442] agnijvālā-, ghaṭī-,[443] jala-,[444] phala-, and vālukāsveda.[445] This list differs from a previous one with thirteen items (III.2.142–145).

Chapter five describes four methods of bloodletting (raktāvasecana): venesection (śirāvirecana), drawing of blood by means of gourds (alābu), horns (śṛṅga), and leeches (jalaukā) (5.1–4).[446] The chapter ends with a verse on the characteristics of corrupted blood (5.5).

Chapter six describes the drawing of blood by means of leeches. Four kinds of leeches are distinguished: indrāyudhā, rohiṇī, kālikā, and dhūmrā.[447] The dhūmrā leech is the only one that can safely be applied by physicians.

Chapter one of the Kalpasthāna describes the mythical origin, tastes, and other properties of harītakī. Seven varieties are distinguished: vijayā, rohiṇī, pūtanā, amṛtā, cetakī, abhayā, and jīvantī. The appearance, colour, location, and uses of each variety are enumerated.[448] The subject is resumed in chapter three.

Chapter two is about the uses of triphalā.[449]

Chapter three (harītakīkalpavarṇanabheda) continues the discussion of the varieties of harītakī and their uses. Two varieties of cetakī, a black and a white one, are distinguished.[450]

Chapter four (rasonakalpa) is concerned with the mythical origin, properties and uses of garlic (rasona, laśuna).[451] Garlic owes its origin to some drops of the amṛta, fallen from the beak of Garuḍa, who stole a portion of it during the churning of the ocean. It is described as a rejuvenating substance, forbidden to brāhmaṇas.

Chapter five describes guggulu and its uses.[452] This substance is said to derive from trees growing in desert regions (marubhūmi) and in the Himālayas. It should be collected in deserts in summer and in the mountains in winter.

The only chapter of the Śārīrasthāna treats subjects usually discussed in a Śārīrasthāna, but its main emphasis is on embryology. The human body is said to be composed of the five mahābhūtas, five sense organs, seven elements (dhātu), ten kinds of vāta[453] (1), and three guṇas (2); the three guṇas are jīva, manas and ākāśa.[454] The four stages of the human life cycle are called bāla, prauḍha, pragalbhaka, and sthavira (3).[455] Verses on female physiology introduce the section on embryology. A series of factors are enumerated which result in the experience of sexual pleasure during intercourse: dhātubala gives rise to sattva, sattva to rajas, rajas to kāma (the sexual urge), kāma to surata (orgasm) (7). Menstruation (ṛtu) takes place during the first seven days of each cycle;[456] after this period a woman is called ṛtumatī (8–9). Conception is the result of the union of the male semen (bīja) and female rajas; both fluids are a form of śukra or retas (16). The male and female roles in conception are compared to those of Śiva and his Śakti (14–15).[457]

The embryological development is sketched in some detail (17–23). The stages described differ considerably from those found in other works.[458] The birth of a boy or a girl is ascribed to a preponderance of either the male semen or the female rajas (26–27). The child born will be of a sāttvika, rājasa or tāmasa character, depending on the emotional state of the mother during impregnation (28–30). A series of constitutional characteristics is enumerated which are partly the same as those of the constitutions described in a previous chapter (I.5); the series of constitutions (prakṛti) of the Śārīrasthāna is remarkable, even unique, in including those brought about by the dominance of a combination of vāta and rakta, pitta and rakta, and kapha and rakta (31–36).[459] Some subsequent verses (37–40) are about the conditions leading to the birth of a non-male-non-female (napuṃsaka) and the birth of twins (yamala). The remaining part of the chapter gives a second sketch of the development of the embryo, different from the preceding one, and a detailed account of the origin of the physical and mental components of the human organism, in which the various kinds of vāta, the mahābhūtas and the three guṇas (sattva, rajas, tamas) have a predominant role. The account disagrees in many respects with what is found in the other saṃhitās.[460]

The pariśiṣṭādhyāya, not present in all the MSS[461] and by some regarded as a later addition to the Hārītasaṃhitā,[462] refers to the Śārīrasthāna as embodying the teachings of Vyāsa. After listening to it, Hārīta went to the river Ganges (Svarṇadī) in order to bathe and meditate.

Those studying the śāstra, i.e. āyurveda, are said to enjoy health and to be delivered from all sins. The āyurveda, as venerable as a Veda, has originally been expounded by Brahmā, subsequently by Atri, as well as by Dhanvantari and the Aśvins. Other experts acquainted with it were Caraka, Suśruta and Vāgbhaṭa. The saṃhitā of Atri was authoritative in the Kṛtuguga, Suśruta's work in the Dvāpara, and Vāgbhaṭa's treatise in the Kaliyuga. Medical saṃhitās were also composed by Viṣṇu, the Aśvins, Garga, Mādhyāhnika,[463] and Mārkaṇḍeya. The six (medical) sages are Agniveśa, Bheḍa, Jatūkarṇa, Parāśara, Hārīta, and Kṣīrapāṇi. The foremost authority, however, is Ātreya, whose position is equal to Ananta (i.e., Śeṣa) among the serpents and Śambhu among the gods.

Names of medicinal plants mentioned in the *Hārītasaṃhitā* that are absent from the *Bṛhattrayī* are: ālūṣaka (I.16.16),[464] arikā (III.2.61; 28.12),[465] aṣṭahalī (III.2.96),[466] balādanī (I.16.14),[467] bhīru (III.47.16 and 52.19),[468] bhīruka (III.18.14),[469] bhīrukā (III.48.28),[470] bila (III.51.8),[471] cāpamardaka (I.16.16),[472] cāriṇī (III.28.19),[473] cavilā (III.12.43), dāraka (III.56.2 and 3), dhara (III.4.25),[474] gajabalā (III.2.126), gavādanī (III.18.24),[475] gavāstanī (III.12.32),[476] guruvṛkṣaka (II.7.2),[477] hastikanda (I.16.34 and 39),[478] indrā (III.28.15),[479] kaithaka (III.18.26),[480] kañcaṭa (III.20.86), kaṇḍū (I.15.14),[481] kaṇṭaka (III.33.11),[482] kaphādanī (I.16.13),[483] karaha (I.17.5 and 8),[484] kaṭāhaka (I.17.12),[485] kokilāhvaya (III.7.56),[486] kokilākhyā (III.40.17),[487] koṭaja (III.2.116),[488] kuberākṣa (III.7.58),[489] kumbhā (III.2.61),[490] kumedhikā (III.18.9),[491] kuṇḍalī (III.2.54; 3.92),[492] mācikā (III.6.35),[493] māḍa (I.19.4),[494] mahācāvala (I.5.55),[495] mahatpicumanda (III.11.53),[496] mahāvibhītaka (III.45.28), mallī (III.11.95),[497] methikā (I.16.8),[498] mohinī (III.16.17),[499] murāmāṃsī (III.9.98; 21.29),[500] nāgavallī (I.17.29),[501] nṛttaka (III.31.9),[502] palāśabheda (III.54.17),[503] payadantī (III.11.31),[504] rudrajaṭā (III.10.66),[505] śakrāhva (III.2.66; 28.20),[506] śaṇaghaṇṭikā (III.18.35),[507] śārṅgavairika (III.56.1),[508] śārṅgavera (III.56.3),[509] satsukanduka (III.56.2 and 4),[510] siṃhamukhī (III.15.5),[511] śitāśivā (III.43.5),[512] sitāvarṣā (II.7.3),[513] śṛtaka (III.18.14),[514] suparṇā (III.5.30), suparṇikā (III.15.6),[515] sūryakānti (III.52.18),[516] śvetādrikarṇī (III.48.21), tāmbūlaparṇa (I.16.33),[517] tantuka (III.2.103),[518] tulasī (III.2.136; 4.35; 12.36), tulasikā (III.12.33), tuṇḍī (I.16.17),[519] tuṇḍīra (I.16.23),[520] tuṇḍīraka (III.6.35; 11.108), vālmikā (I.17.2),[521] vanakesara (III.9.97),[522] vāstukarṇī (III.52.14),[523] vasudhā (III.10.52),[524] vāsumantī (III.18.25),[525] vejikā (I.16.8),[526] vikacā (III.6.19),[527] vṛddhadantī (III.18.25),[528] and yugandhara (I.11.6; 23.3).[529]

Mercury may be mentioned once (III.55.21: pārada).

Date

The *Hārītasaṃhitā* that is known to us from MSS and some editions is sometimes regarded as entirely different from a much earlier treatise of the same name. The later text is for that reason referred to as Pseudo-*Hārītasaṃhitā* and its author is called Hārīta II to distinguish him from Hārīta I or Vṛddhahārīta.[530] The main reason for this distinction was the small number of quotations from Hārīta (and Ātreya) that can be traced in the printed versions of the *Hārītasaṃhitā*. The number of traceable citations is, to be sure, restricted, but proves to be larger than was formerly assumed. Consequently, the relationship between an old version and the one preserved is more complicated than presumed by those who consider Hārīta I and II to be altogether distinct.

The date of the old version of the *Hārītasaṃhitā* cannot be determined with any precision. Clues to the period to which the printed text belongs are, on the other hand, not scarce at all.

The *Hārītasaṃhitā* contains one verse that is found in Ravigupta's *Siddhasāra*, a work that dates from about A.D. 650.[531] Ravigupta's verses are of his own making and not borrowed from predecessors, which establishes that the *Siddhasāra* is earlier than the *Hārītasaṃhitā*. This fact is in conformity with the appearance of Vāgbhaṭa's name in the pariśiṣṭādhyāya, although this chapter may be a later addition. Some more features that may be interpreted as pointing to influences from the side of Vāgbhaṭa

consist of the description of mada in the chapter on madātyaya and the description of the disease called upaśīrṣaka, recognized by Vāgbhaṭa, but absent from the *Caraka-* and *Suśrutasaṃhitā*. The presence of separate chapters on śūla (III.7), nidrā (III.15), āmavāta (III.21), amlapitta (III.24) and vṛddhi (III.32), in line with the arrangement found in the *Mādhavanidāna*, is in favour of placing the *Hārītasaṃhitā* in about the same period, i.e., the eighth century. The question whether or not the *Hārītasaṃhitā* is posterior to Mādhava's work remains problematic, since both works may partially be based on the same sources.[532] In addition, there are considerable differences between the arrangement and the nosological system of *Hārītasaṃhitā* and *Mādhavanidāna*. The absence of verses on the examination of the urine and the pulse indicates that the *Hārītasaṃhitā* is anterior to Vaṅgasena's *Cikitsāsārasaṃgraha* and the *Śārṅgadharasaṃhitā*. The absence of prescriptions containing Cannabis corroborates this point.[533]

Plant names that may rather safely be taken as evidence pointing to a relatively late date of the *Hārītasaṃhitā* are kañcaṭa,[534] māḍa,[535] murāmāṃsī,[536] rudrajaṭā,[537] tulasī,[538] and yugandhara.[539]

Some more late words found in the *Hārītasaṃhitā* are bhājikā (III.2.238), mahācāvala (I.5.55), and pasāhī (I.15.1).[540] The references to Śiva and his Śakti (Śārīra 14–15) and to meditation on Śiva (śivadhyāna; III.55.15) confirm that the work cannot be assigned to an early period.

The evidence taken together is in favour of placing the *Hārītasaṃhitā* in the period A.D. 700–1000.[541]

Chapter 5
Mādhava

Mādhava[1] was the author of the *Rogaviniścaya* and, possibly, of the *Mādhavacikitsā*. His authorship of some other medical works is problematic.[2]

Contents of the *Rogaviniścaya* or *Mādhavanidāna*

The work called *Rogaviniścaya*[3] by the author himself (1.2),[4] but generally known as the *Mādhavanidāna*, is the earliest compendium on the group of five subjects collectively called nidāna, which consist of nidāna in its restricted sense (aetiology), pūrvarūpa (prodromes), rūpa (symptomatology), upaśaya (therapeutic diagnosis), and saṃprāpti (pathogenesis). The first chapter of the treatise is devoted to the characterization of these five concepts and a number of related issues, while the remaining sixty-eight chapters contain descriptions of the nidāna, pūrvarūpa, rūpa and saṃprāpti, and also in many cases the upadravas (complications) and signs indicating incurability (asādhyalakṣana), of all the diseases recognized by Mādhava. The work ends with an enumeration of the diseases dealt with[5] and two concluding verses.

The *Mādhavanidāna*, which contains about 1,530 verses, is primarily a work that draws upon earlier treatises,[6] chiefly the *Carakasaṃhitā*, *Suśrutasaṃhitā*, and *Aṣṭāṅgahṛdayasaṃhitā*. Sources of minor importance are the *Aṣṭāṅgasaṃgraha*[7] and Ravigupta's *Siddhasāra*.[8] As not all the verses can be traced to these five works, Mādhava must have utilized some still unidentified or lost earlier texts, while, moreover, he may have composed parts of his treatise himself. The fact that Mādhava made use of unidentified treatises is attested by some verses which derive from texts vaguely referred to as 'another book' by the commentators on the *Caraka-* and *Suśrutasaṃhitā*.[9] Moreover, the first verse of the chapter on bhagna (44.1), which looks like a quotation, consists of the answer by an unnamed authority, who may be Ātreya, to a question put by Hutāśa (= Agniveśa); 44.2–7 may be from the same unknown source, which is not the *Carakasaṃhitā*.[10]

In spite of its compilatory character, the *Mādhavanidāna* is an important treatise. Verses on nidāna – scattered over several sections of the works of Caraka, Suśruta and Vāgbhaṭa – have not only been collected in it, but also selected and arranged so as to form coherent descriptions of diseases. In some cases Mādhava failed in organizing his matter carefully, thus making the seams of his patchwork stand out clearly.[11]

The majority of the chapters of the *Rogaviniścaya* are made up of verses from more than one source, but exceptions are not infrequent.[12] The stanzas chosen by Mādhava not only show variants, but are sometimes loosely related to the corresponding accepted readings of Caraka, Suśruta and Vāgbhaṭa, or they even consist of alternative readings recorded as such by the commentators.[13] Descriptions of disorders occurring in the saṃhitās in prose appear in a versified form in Mādhava's work.[14] Sometimes verses based on prose passages from the *Suśrutasaṃhitā* are preferred to stanzas on the same subject found in Vāgbhaṭa's works.[15]

A few chapters may have been written, partly or completely, by Mādhava himself,[16] unless they have been taken from an unknown text. Odd verses from an unknown source or by Mādhava are far from rare.[17]

A major contribution of Mādhava is the new order in which the diseases were arranged by him. A similar attempt had already been made by Ravigupta, but it was Mādhava's scheme that became standard and was adopted by a large number of later authors.

The *Rogaviniścaya* is concerned with six out of the eight divisions (aṅga) of āyurveda; rasāyana and vājīkaraṇa, being subjects connected with treatment, are left out of consideration. The six divisions represented are kāyacikitsā (chapters 2–19, 22–37, 49–54), bhūtavidyā (chapters 20–21), śalya (chapters 38–48 and 55), śālākya (chapters 56–60), kaumārabhṛtya (chapters 61–68), and agadatantra (chapter 69). The reasons for this particular manner of arranging the material remain obscure.

The creation of this new alignment was facilitated by dividing the book into a rather large number of chapters as compared with the corresponding parts of the saṃhitās of Caraka, Suśruta and Vāgbhaṭa, which often describe groups of diseases, sometimes rather distantly related, in one single chapter. Examples illustrating Mādhava's procedure are the separate chapters on dāha (a syndrome characterized by a burning sensation; 19),[18] nāḍīvraṇa (fistulas; 45),[19] upadaṃśa (affections of the male member; 47),[20] visarpa (erysipelas; 52),[21] asṛgdara (menorrhagia and metrorrhagia, as well as fluor; 61),[22] and stanaroga (diseases of the mammary glands; 66).[23] The reverse procedure is also adopted; the *Mādhavanidāna* contains a small number of new clusters: nidrā (excessive sleepiness) and tandrā (lassitude) occur in the same chapter (17) as mūrchā (fainting) and saṃnyāsa (prolonged loss of consciousness);[24] ānāha (obstructive abdominal swelling) is described along with udāvarta (a group of disorders arising from restraint of the natural urges; 27).[25]

Mādhava's inventiveness in arranging the disorders also appears from the changed order of the members of groups of disorders, in comparison with their order in the sources. Examples are found in the chapters on galagaṇḍa (goitre), etc. (38),[26] and netraroga (eye diseases; 59). The composition of these groups does not always tally with that found in the works of Caraka, Suśruta and Vāgbhaṭa, since the author of the *Rogaviniścaya* made his own decisions. An example is the group of disorders known as upadaṃśa, which has been enlarged by adding liṅgavarti, also called liṅgārśas (warts on the penis; 47.6–7).[27] In the chapter on kṣudrarogas (55)[28] he adopts the order of the *Suśrutasaṃhitā*, but diminishes the number of these diseases from forty-eight[29] to forty-three by leaving out visphoṭaka, pāmā, vicarcī, rakasā,[30] masūrika,[31] and carmakīla,[32] and adding a new item, śūkaradaṃṣṭraka.[33] The chapter on mukharoga (diseases of mouth and throat; 56), mainly based on Suśruta, adds the disease karāla (56.20), described by Vāgbhaṭa.[34] The chapter on bālaroga (children's diseases; 68) contains descriptions of pārigarbhika (68.10–11)[35] and mahāpadma (68.14–15ab),[36] borrowed from the *Aṣṭāṅgasaṃgraha*.

Special features of the *Rogaviniścaya* or *Mādhavanidāna*[37]

A notable and substantial contribution of Mādhava consists of his description of new diseases absent from earlier works, and the development of some disorders which are only sketchily characterized or not recognized as fully independent diseases by his predecessors into autonomous nosological entities. These innovations became highly influential and were almost universally acknowledged by later writers.

Two disorders recognized as independent entities for the first time by Mādhava are śūla (piercing, colic-like pain; 26)[38] and visphoṭa (diseases in which vesicles or blisters appear; 53). The *Suśrutasaṃhitā* deals with śūla in its chapter on the treatment of gulma (visceral swelling), where it is in the first place regarded as a secondary affection in cases of gulma (U.42.66cd–69ab), and secondly as an autonomous disease (U. 42.73cd–88a). Mādhava's chapter on śūla, made up of twenty-two verses which may have been composed by himself, precedes that on gulma (28),[39] and does not contain a single statement on a relationship between the two. The disease called visphoṭa is not absent from the classical saṃhitās, but is only cursorily referred to there as forming part of a group of disorders. The *Carakasaṃhitā* mentions it in the chapter on śvayathu (inflammatory swellings; Ci.12.90cd), together with kakṣāḥ (herpes zoster) and other skin eruptions, while Suśruta (Ni.13.18) and Vāgbhaṭa (A.h.U.31.9ab = A.s.U.36.9) regard it as one of the kṣudrarogas.[40] Mādhava gives the disorder an independent status, and devotes a separate chapter to it, consisting of eleven verses, which, with one exception, may be of his own making.

The new diseases appearing for the first time in the *Mādhavanidāna* are: āmavāta (25), pariṇāmaśūla and annadravaśūla (26.15cd–22), medoroga (34), śītapitta (50), amlapitta (51), masūrikā (54), śūkaradaṃṣṭraka (55.55), kuñcana (59.96), pakṣmaśāta (59.99), and yonikanda (63).

The disease called āmavāta[41] (often equated with rheumatoid arthritis)[42] is described in a separate chapter of twelve verses which may have been composed by Mādhava. The *Hārītasaṃhitā* (III.21) described it in its own manner, independently of Mādhava. The disorders called pariṇāmaśūla (a type of śūla manifesting itself during the digestion of food) and annadravaśūla (which may appear during the digestive process or precede or follow it), which are unknown in earlier medical treatises,[43] are dealt with in the chapter on śūla as varieties of this disease. Medoroga (obesity)[44] is characterized in four verses, which may again be by Mādhava; these verses are followed by five ślokas from the *Carakasaṃhitā* (Sū.21.5–9). Mādhava made medoroga into a nosological entity, whereas it was Caraka's aim not to characterize a disease in its own right, but an undesirable condition leading to afflictions of various kinds. An illness called śītapitta (urticaria),[45] not recorded in the classical saṃhitās, is

described by Mādhava in a short chapter of six verses, the first five of which may be his own, whereas the sixth has been borrowed from Vāgbhaṭa (A.h.U.31.32–33ab = A.s.U.36.30).[46] Three disorders closely related to śītapitta according to Mādhava's arrangement, namely udarda (a special form of urticaria), koṭha (an exanthematous, itching erruption), and utkoṭha (a disorder resembling koṭha), are discussed in the same chapter, thus forming a new cluster of Mādhava's making.[47] The term amlapitta usually denotes a symptom in the classical saṃhitās, not a separately described nosological entity.[48] Mādhava regards it as an independent disease (corresponding to a dyspepsia, accompanied by vomiting and diarrhoea or spitting of blood), characterized in a separate chapter of twelve verses, which may be his own. The chapter on amlapitta of the *Hārītasaṃhitā* (III.24) has possibly been influenced by the *Mādhavanidāna*, whereas that of the *Kāśyapasaṃhitā* (Khila 16) appears to be original. The chapter on amlapitta of the *Rogaviniścaya* ends with a verse on a related disorder, śleṣmapitta, but, since the commentators are silent on it, it can safely be assumed to be a later interpolation.[49]

Very important is the fact that Mādhava is the earliest author to give a detailed description of masūrikā (smallpox, chicken pox, and other infectious, eruptive fevers). A disorder of this name is briefly mentioned in a single verse of the chapter on śvayathu of the *Carakasaṃhitā* (Ci.12.93), together with romāntikā (Ci.12.92), related to masūrikā, whereas Suśruta (Ni.13.38) and Vāgbhaṭa (A.h.U.31.8 = A.s.U.36.8) regard masūrikā as one of the kṣudrarogas. The *Kāśyapasaṃhitā* deals with masūrikā in a verse at the end of the chapter on visarpa (Khila 14), while the *Hārītasaṃhitā* (III.24) considers it to be a variety of contagious piḍakās (pustules).[50] The *Mādhavanidāna* has a chapter of thirty-one verses, probably by Mādhava, on masūrikā and its various types, among which romāntī figures.[51]

The disorder called śūkaradaṃṣṭraka[52] was added by Mādhava to the group of kṣudrarogas. The *Mādhavanidāna* describes seventy-eight eye diseases, as opposed to the seventy-six of the *Suśrutasaṃhitā*, by adding two diseases of the eyelashes, called kuñcana[53] and pakṣmaśāta.[54] Śrīkaṇṭhadatta claims in his comments that kuñcana was borrowed from some other treatise, while pakṣmaśāta[55] is equated by this commentator with kṛcchronmīla of Vāgbhaṭa (A.h.U.8.3–4 = A.s.U.11.4–5).[56] The short chapter of four verses on yonikanda may have been composed by Mādhava. This disease, especially prevalent in elder women according to Śrīkaṇṭhadatta in his comments, probably corresponds to a prolapse of the vagina or uterus.[57]

The group of puerperal disorders (65; sūtikāroga) is an innovation of Mādhava; it consists of aṅgamarda, jvara, kampa, pipāsā, gurugātratā, śotha, śūla, and atisāra.[58]

One of the diseases not described in the *Mādhavanidāna* is a disease of the head, called upaśīrṣaka;[59] tuṇḍi, a children's disease, is also absent,[60] as well as the term bradhna.[61]

Several editions of the *Mādhavanidāna* contain additional verses, ignored in the *Madhukośa*. Some stanzas added to the end of the chapter on grahaṇī describe the varieties called saṃgrahagrahaṇī[62] and ghaṭīyantragrahaṇī.[63]

Quotations from and references to the *Rogaviniścaya* or *Mādhavanidāna*

Mādhava, the author of the *Mādhavanidāna*, is quoted by Āḍhamalla,[64] Āśubodha and Nityabodha Senagupta in their commentary on the *Rasaratnasamuccaya*, Gaṇanāthasena in the auto-commentary on his *Siddhāntanidāna*,[65] Gopāladāsa in the *Cikitsāmṛta*,[66] Jayaratna in the *Jvaraparājaya*, Jīvānandavidyāsāgara in his commentary on the *Rasendrasārasaṃgraha*, Nāganātha in the *Nidānapradīpa*, Nārāyaṇa in the *Jvaranirṇaya*,[67] Niścalakara in the *Ratnaprabhā*,[68] Sukhānanda in his commentary on Lolimbarāja's *Vaidyajīvana*,[69] and in the *Yogaratnākara*.[70]

Mādhava is mentioned in the *Haṃsarājanidāna*, Herambasena's *Gūḍhabodhakasaṃgraha*, Trimalla's *Vaidyacandrodaya*,[71] Vācaspati's commentary on the *Mādhavanidāna*,[72] and Vijayarakṣita's part of the *Madhukośa*.[73]

The author of the *Mādhavanidāna* is called Mādhavācārya by Āḍhamalla[74] and in the commentary on the *Āyurvedābdhisāra*.[75] He is quoted or referred to as Mādhavakara or -kāra in Aghoranātha's commentary on his *Bhiṣaksarvasva*,[76] Āśubodha and Nityabodha Senagupta in their commentary on the *Rasaratnasamuccaya*, Hemādri's commentary on the *Aṣṭāṅgahṛdayasaṃhitā*,[77] Niścalakara's *Ratnaprabhā*,[78] Śivamiśra's *Vaidyaśāstraśivānubhava*, Śrīkaṇṭhadatta's part of the *Madhukośa*,[79] Sukhānanda's commentary on the *Vaidyajīvana*,[80] Vācaspati's commentary on the *Mādhavanidāna*,[81] and Vijayarakṣita's part of the *Madhukośa*.[82] Āśubodha and Nityabodha Senagupta quote him as the Rugviniścayakṛt in their commentary on the *Rasaratnasamuccaya*. He is called Saṃgrahakāra in Śrīkaṇṭhadatta's part of the *Madhukośa*[83] and Vācaspati's *Ātaṅkadarpaṇa*.[84]

The *Mādhavanidāna* is quoted or referred to as *Gadaviniścaya*, *Mādhavanidāna*, *Mādhavasaṃgraha*, *Nidāna*, *Nidānasaṃgraha*, *Rogaviniścaya* and *Rugviniścaya* in Āḍhamalla's commentary on the *Śārṅgadharasaṃhitā*,[85] Aghoranātha's commentary on his *Bhiṣaksarvasva*,[86] the *Ārogyāmṛtabindu*, Āśubodha and Nityabodha Senagupta's commentary on the *Rasaratnasamuccaya*,[87] the *Basavarājīya*,[88] *Bhāvaprakāśa*,[89] *Bhesajjamañjūsāsannaya*, *Bṛhannighaṇṭuratnākara*, Caturbhuja's commentary on the *Rasahṛdaya*,[90] Gulrājśarmamiśra's *Viśikhānupraveśavijñāna*,[91] Harṣakīrti's *Yogacintāmaṇi*,[92] Hemādri's commentary on the *Aṣṭāṅgahṛdayasaṃhitā*,[93] Jñārasarāma's version of the *Amṛtasāgara*,[94] Kāśirāma's commentary on the *Śārṅgadharasaṃhitā*,[95] Lakṣmīcandra's *Lakṣmīprakāśa*,[96] Lakṣmīrāma's commentary on the *Siddhabheṣajamaṇimālā*,[97] Meghamuni's *Meghavinoda*,[98] Niścalakara's *Ratnaprabhā*,[99] Rāmacandra's *Rāmavinoda*, Rājeśvaradatta Miśra's *Svasthavṛttasamuccaya*,[100] Satyadeva Vāsiṣṭha's commentary on Rāvaṇa's *Nāḍīparīkṣā*, Śrīkaṇṭhadatta's commentary on the *Siddhayoga*,[101] Trimalla's *Yogataraṅgiṇī*[102] and *Bṛhadyogataraṅgiṇī*,[103] Vācaspati's commentary on the *Mādhavanidāna*,[104] Vallabhagaṇi's commentary on Hemacandra's *Abhidhānacintāmaṇi*,[105] the *Vīrasiṃhāvaloka*,[106] Vṛnda's *Siddhayoga*,[107] and Yogīndranātha's commentary on the *Carakasaṃhitā*.[108]

The nidāna verses of a very large number of later works draw heavily on the *Mādhavanidāna* without specifying this source.

Verses said to be from the *Mādhavanidāna*, but dealing with treatment, are found in the *Basavarājīya* and Vallabhendra's *Vaidyacintāmaṇi*.

Works related to the *Rogaviniścaya* or *Mādhavanidāna*

A supplement, called *Nidānapariśiṣṭa*, was written by Hārādhana,[109] while a *Mādhavanidānapariśiṣṭa*[110] is due to Brahmaśaṃkara Śāstrī.[111] An *Abhinavamādhavanidāna* by Rājaguru Kavicandra and a *Mādhavanidānasāra* are known from Sri Lanka.[112]

Commentaries on the *Rogaviniścaya* or *Mādhavanidāna*

The large number of commentaries on the *Rogaviniścaya* testifies to the fame this work acquired.

The following commentaries are known or mentioned:

1 *Vyākhyāmadhukośa* by Vijayarakṣita and Śrīkaṇṭhadatta.
2 *Ātaṅkadarpaṇa* by Vācaspati.
3 *Rogaviniścayavivaraṇasiddhāntacintāmaṇi*[113] or simply *Siddhāntacintāmaṇi*[114] by Narasiṃha Kavirāja,[115] assistant of Rāmakṛṣṇa Bhaṭṭa and son of Nīlakaṇṭha Bhaṭṭa.[116] Narasiṃha was the teacher of Vaidyacintāmaṇi, who lived in the eighteenth century.[117] Narasiṃha refers in the *Siddhāntacintāmaṇi* to his commentary on the *Carakasaṃhitā*, called *Carakatattvaprakāśakaustubhaṭīkā*, and frequently adduces Caraka in illustration of Mādhava's verses, whilst quotations from Suśruta are much rarer.[118]
Narasiṃha's *Siddhāntacintāmaṇi* is undoubtedly the same as the *Siddhāntacandrikā* by Narasiṃha Kavirāja, son of Nīlakaṇṭha Bhaṭṭa and pupil of Rāmakṛṣṇa Bhaṭṭa, mentioned by S. Dasgupta,[119] who claims that the work, though based on the *Madhukośa*, is an excellent commentary, containing much that is both instructive and new. Dasgupta was in error when supposing that probably the only MS available was the one belonging to the library of his family; an edition, planned by him, never appeared. Th. Aufrecht recorded a MS of an anonymous *Siddhāntacandrikā* on the *Mādhavanidāna*.[120] P.V. Sharma discovered an additional MS of Narasiṃha's commentary in the Central Library of the Benares Hindu University. This MS, the first two parts of which are missing, was written in 1770 by one Jayacandradāsa, who belonged to the tradition of Narasiṃha.[121]
P.V. Sharma[122] informs us that Narasiṃha criticizes the authors of the *Madhukośa* at many places and quotes the following authorities and works: Bhaṭṭāraka (Hariścandra), Bhoja, Cakra, Caraka, Gayin, Hārīta, Jejjaṭa, Kṣārapāṇi, *Mahābhārata*, Nimi, Sātyaki, Śrīdharasvāmin, Suśruta, Vāgbhaṭa, Vāpyacandra, Varāhamihira, Videha, *Viṣṇudharmottara*, *Vṛddhakāśyapa*, and Yaśodhara. The data available point to the eighteenth or the last part of the seventeenth century as the age of Narasiṃha.
4 *Mādhavanidānaṭippaṇī* by Bhāvamiśra.[123] An anonymous work of the same title is also known.[124]
5 *Rugvinirṇayaṭīkā* by Bhavānī Sahāya.[125]
6 *Nidānārthaprakāśikā* by Candrakumāra Dāsa.[126]
7 *Saralā* by Chiranjivi Lall Sharma.[127]
8 *Arthaprakāśikā* by Gaṇeśa Bhiṣaj.[128]

9 a commentary by Īśānadeva.[129]
10 *Mādhavanidānasubodhinī* by Jñānameru, pupil of Mahimasundaragaṇi of the Kharataragaccha, in his turn pupil of Sādhukīrtyupādhyāya.[130]
11 a commentary by Kālidāsa.[131]
12 a commentary on chapter two (on fevers) by Karmacandra, a Jain monk of the Kharataragaccha, who lived in the second half of the seventeenth or first half of the eighteenth century.[132]
13 a commentary by Maitreyarakṣita.[133]
14 a commentary by Raiśarman,[134] who may have been the elder brother of Vācaspati, the author of the *Ātaṅkadarpaṇa* on the *Mādhavanidāna*.[135]
15 *Vaidyamanoramā* by Rāmakṛṣṇa, son of Gaurī and Nīlakaṇṭha.[136]
16 a commentary by Rāmanātha Vaidya.[137]
17 *Śāradā* by Śrīśāradācaraṇasena, a relatively modern commentary.[138]
18 a commentary by Sudhīra.[139]
19 a commentary by Sukīra.[140]
20 *Sudhālaharī* by Umeśānanda Śarman, a modern commentary.[141]
21 *Subodhinī* by Vādeva (Vāsudeva?) Māthura, consisting of short glosses on difficult verses of the *Nidāna*.[142]
22 an anonymous commentary called *Bālabodhinī*.[143]
23 an anonymous avacūri.[144]
24 an anonymous stabaka.[145]
Gaṅgārāma, a Jain monk, rendered the *Mādhavanidāna* into Hindī verse in 1821/22; this version, called *Yatinidāna*, contains additional material on diseases not described by Mādhava.[146]

Mādhavacikitsā

The *Mādhavacikitsā*[147] is the earliest compendium on therapy of Sanskrit medical literature, if one disregards a work like the *Yogaśataka*, which consists only of a collection of recipes.[148]

The text of the edition is divided into eighty-one chapters. Chapters one to sixty-seven are connected with the treatment of the disorders described in the *Mādhavanidāna*, essentially in the same order. The remaining chapters are devoted to rasāyana (68), vājīkaraṇa (69), pañcakarman (70), sneha (71), sveda (71), sveda (72), vamana (73), vireka (74), anūvasana and nirūha (75–76), dhūma (77), nasya (78), kavala and gaṇḍūṣa (79), prescriptions for various disorders (prakīrṇarogacikitsā), as well as weights and measures (80), and paribhāṣā (81). The same type of arrangement was adopted in many later works, such as Vṛnda's *Siddhayoga*[149] and Cakrapāṇidatta's *Cikitsāsaṃgraha*.[150]

The scheme of chapters one to sixty-seven does not fully agree with that of the *Mādhavanidāna*. The *Mādhavacikitsā* has separate chapters on pravāhikā (irritation of the large intestine, including the bacillary dysenteries; 3),[151] bhūtonmāda (insanity caused by supernatural beings; 19),[152] gṛdhrasī (sciatica; 22),[153] plīhan (splenomegaly; 36),[154] śophodara (37),[155] snāyuka (dracontiasis, i.e., the Guinea worm disease; 53),[156] and somaroga or mūtrātisāra (a polyuria occurring in women;

63).[157] One chapter is concerned with the therapy of visarpa and visphoṭa (52), whereas the *Mādhavanidāna* devotes two chapters to these diseases.[158] One chapter deals with all kinds of vraṇa (ulcers and wounds; 43).[159] The chapters on kaumārabhṛtya are arranged differently from those in the *Nidāna*; their order is strīroga (61), pradara (62), somaroga (63), strīroga again (64), and garbharakṣā (65),[160] whereas the *Nidāna* has asṛgdara (= pradara), yonivyāpad (a composite group, comprising menstrual disorders, diseases of the vagina, and functional disorders of psychogenic origin), yonikanda, mūḍhagarbha (disturbances of pregnancy and malposition of the foetus), sūtikāroga (puerperal diseases), stanaroga (diseases of the breasts), and stanyaduṣṭi (disorders of the breastmilk).[161]

A striking feature of the *Mādhavacikitsā* is the presence of chapters on the treatment of snāyuka and somaroga, diseases unknown to the author of the *Mādhavanidāna*.[162] The disease called snāyuka is described for the first time in Vṛnda's *Siddhayoga* (55.15–19), somaroga in Vaṅgasena's *Cikitsāsārasaṃgraha* (strīroga 80–88), two treatises written after the period in which Mādhava lived. The view that the *Mādhavanidāna* and *Mādhavacikitsā* were written by one and the same author[163] can therefore be upheld only if the chapters on snāyuka and somaroga are considered to be interpolations of later origin.[164] The possibility that these chapters are actually interpolations is strengthened by the absence of a chapter on snāyuka in the manuscript kept at the Bhandarkar Oriental Institute in Poona.[165]

The general impression one gains on reading the *Mādhavacikitsā* is that of a rather early work, prior to the *Siddhayoga*. It shares many verses with it, but is more concise. Part of its prescriptions do not occur in the *Siddhayoga*[166] or *Cakradatta*.

Details pointing to an early date of composition – prior to that of the *Siddhayoga* – are the following. The chapter on kṛmiroga (diseases caused by parasites; 7) does not yet prescribe the use of pārasīyayavānī,[167] and the juice from the leaves of dhattūra.[168] Religion and astrology do not figure in the treatment of masūrikā and viṣa, while they do so in the *Siddhayoga*.[169] Many of the more complicated compound formulae of *Siddhayoga* and *Cakradatta* are absent from the *Mādhavacikitsā*.[170]

A noteworthy feature is the presence, in agreement with the *Mādhavanidāna*, of a separate chapter on the treatment of śūla and pariṇāmaśūla.[171] Chapters on the treatment of āmavāta,[172] amlapitta,[173] and medoroga[174] are present as well. The section on the treatment of various disorders contains a prescription against śītapitta (prakīrṇaroga 1).[175]

Some other noteworthy features of the treatise consist of a prescription with kañcaṭa[176] as one of its ingredients and the presence of prescriptions against carmakīla in the chapter on kṣudraroga (55.25 and 30).[177][178]

Sources are sometimes referred to in the *Mādhavacikitsā*.[179] A considerable number of verses have been borrowed from Ravigupta's *Siddhasāra*.[180]

As in the *Mādhavanidāna*, the author does not mention his name, but the colophon of the edition states that the work is by Mādhava, son of Indukara.[181]

The *Mādhavacikitsā* is quoted as *Mādhavasaṃgraha* in Niścalakara's *Ratnaprabhā*[182] and, without mention of the name of the work, by Śrīkaṇṭhadatta in the *Vyākhyākusumāvalī*.[183]

Other medical works

The question which of the other medical treatises attributed to an author called Mādhava can be assigned to the one who wrote the *Mādhavanidāna* and, possibly, the *Mādhavacikitsā*, still remains partially unanswered, though many of the problems concerning medical works by authors of the name of Mādhava have been solved in recent years, first and foremost thanks to the scholarship of P.V. Sharma.[184] Some obscurities are left, for it cannot be ascertained which Mādhava wrote the works called *Praśnasahasravidhāna*, *Yogavyākhyā*, and *Mādhavasaṃgraha*.

The *Praśnavidhāna* is once, without the author being mentioned, referred to by Vijayarakṣita,[185] who calls it a śuśrutaślokavārttika, i.e., versified glosses on the *Suśrutasaṃhitā*.[186] A quotation, attributed to Mādhavakāra in Hemādri's commentary on the *Aṣṭāṅgahṛdaya*,[187] may be from the same work. Niścalakara quotes the *Praśnasahasravidhāna*, i.e., the exposition on a thousand questions, in his *Ratnaprabhā*; unlike Vijayarakṣita, he also gives the name of its author, Mādhava or Mādhavakara.[188] Niścala's first quotation consists of a question and the answer to it, both in verse, connected with a statement found in the *Suśrutasaṃhitā*;[189] the second quotation, in verse too, is about the nature of vāta diseases.[190] The *Suśrutavārttika* of Mādhava, once quoted in Niścala's *Ratnaprabhā*,[191] is obviously the same work as the *Praśnasahasravidhāna*, because it was also composed in the form of questions and answers in verse.

A kind of commentary on the *Suśrutasaṃhitā* by a Mādhava(kara) has once existed, as is clear from a statement found in Vijayarakṣita's part of the *Madhukośa*,[192] where – in a passage that refers to a stanza from the *Suśrutasaṃhitā* – Mādhavakara's name occurs as one among a number of authors of explanatory works.[193] The same series is found in Narahari's *Vāgbhaṭamaṇḍana*.[194] Moreover, Vācaspati cites in his *Ātaṅkadarpaṇa*[195] an explanation by Mādhava that also occurs in the *Madhukośa*, where it is not explicitly attributed to Mādhava. The remark derives from a commentary on the *Suśrutasaṃhitā*, being clearly an elucidation of a technical term found in a passage from that treatise.[196] Finally, the *Ratnaprabhā* claims that an author called Govardhana[197] preferred a comment by Jejjaṭa to that on the same subject by Mādhava.[198]

An unsolved question is whether or not this commentary on the *Suśrutasaṃhitā* is identical with the *Praśnasahasravidhāna*. Conclusive evidence is not available, but it seems reasonable to assume that Mādhava did not write two explanatory treatises on the same saṃhitā.

The identity of this author has not yet been determined. S. Dasgupta[199] pointed to the Śrīmādhava who, according to Ḍalhaṇa in the introduction to his *Nibandhasaṃgraha*, composed a ṭippaṇa on the *Suśrutasaṃhitā*. This Śrīmādhava may or may not be the same as the one who wrote the *Praśnasahasravidhāna*. P.V. Sharma[200] suggested that the author of the *Praśnasahasravidhāna* may be identical with Mādhava, son of Indrakara, who composed the *Paryāyaratnamālā*. Evidence confirming this identity is, however, completely lacking.

The *Yogavyākhyā* is once quoted as a work by Mādhavakara in Śrīkaṇṭhadatta's commentary on the *Siddhayoga*.[201] Judging from Śrīkaṇṭha's quotation, this work appears to have been a treatise on medicinal compounds. Niścalakara also quotes Mādhava(kara)'s *Yogavyākhyā* in his *Ratnaprabhā* on the *Cakradatta*.[202] The references to and the three citations in prose from this work suggest that it consisted of explanations regarding the preparation of compound drugs. Niścala is the only author mentioning a shorter version of Mādhava(kara)'s *Yogavyākhyā*, called *Svalpayogavyākhyā*.[203] Conclusive evidence concerning the identity of this Mādhava(kara) is not available, but he may well be the same Mādhava(kara) who wrote the *Praśnasahasravidhāna* on the *Suśrutasaṃhitā*.

The information that can be extracted from the *Ratnaprabhā* points to the *Yogavyākhyā* and *Svalpayogavyākhyā* as works concerned with the explanation of prescriptions found in the *Carakasaṃhitā*.[204]

A number of Niścala's quotations from and references to Mādhava(kara) that do not name a particular treatise[205] impress as being from the *Yogavyākhyā*, on account of their style and contents. The work they comment on is the *Carakasaṃhitā*.[206] Mādhava(kara) is repeatedly said to follow Jejjaṭa's views;[207] Govardhana is an author who often agrees with him.

A *Mādhavasaṃgraha* is quoted, once only, by Niścalakara.[208]

The author

The *Rogaviniścaya* and *Mādhavacikitsā* are completely silent as to their author. He is called Mādhava, Śrīmādhava, or Mādhavakara in the colophons of manuscripts of the *Nidāna* and its commentaries[209] and in those of the *Cikitsā*.[210] His name appears as Mādhava and Mādhavakara in Vijayarakṣita's part of the *Madhukośa*. Śrīkaṇṭhadatta refers to him as Mādhavakāra in his commentary on the *Siddhayoga*. Hemādri once quotes from the Nidāna as the work of Mādhavakara.

The name of Mādhava's father is Indukara or Candrakara in the colophons of manuscripts of the *Nidāna* and *Cikitsā*.[211]

The foregoing does not suffice to decide whether the author's name was Mādhava or Mādhavakara. It has been supposed, since their names end in -kara, that Mādhavakara and his father belonged to the Kara family mentioned as one of the families of Bengal physicians in Bharatamallika's *Candraprabhā*.[212] The only evidence on this point is the ending -kara of the names of Mādhava and his father, but, as we have seen, there is no certainty in this respect with regard to Mādhava's name.[213] The name of Mādhava's father need not imply a Bengal origin, for authors are known with a name ending in -kara who did not belong to Bengal.[214]

In the past there has been confusion as to the identity of Mādhava,[215] a confusion created by Hoernle in an article about the commentaries on the *Suśrutasaṃhitā*,[216] in which he assumed on faulty grounds that Mādhava and Vṛnda might be one and the same person. The fact that Vṛnda's *Siddhayoga* is also known as *Vṛndamādhava* strengthened him in his belief that the *Mādhavanidāna* and *Siddhayoga* were the

two parts of one work by Vṛnda. Hoernle was unaware of the existence of the *Mādhavacikitsā*, although R. Mitra's description of the Bikāner MS was available at the time he wrote his article. The discovery of more MSS has made it quite clear that Hoernle's views on the subject do not reflect the actual state of affairs.

Date

Mādhava's terminus post quem can only be deduced from the sources of the *Nidāna* and *Cikitsā*. Since the greater part of the *Rogaviniścaya* consists of stanzas borrowed from the *Carakasaṃhitā*, *Suśrutasaṃhitā*, *Aṣṭāṅgahṛdayasaṃhitā*, *Aṣṭāṅgasaṃgraha*, and *Siddhasāra*, and since the *Mādhavacikitsā* contains many verses quoted from the *Siddhasāra*, their dates of composition cannot be earlier than about A.D. 650. The terminus ante quem is the date of Vṛnda, about A.D. 900, because the *Mādhavanidāna* is referred to in the *Siddhayoga*.[217]

Moreover, it has been common knowledge for a long time that a number of Arabic authors mention an Indian medical treatise that may be the *Mādhavanidāna*.[218] Among the Indian medical works recorded by Ibn Abī Uṣaybi'a (who died in 1270) in the twelfth book of his 'classes of physicians', the 'Uyūn al-anbā' fī ṭabaqāt al-aṭibbā',[219] one finds a treatise with the title bdān or ydān,[220] already corrected into ndān, i.e., Nidāna, by Dietz[221] and H.H. Wilson.[222] Uṣaybi'a observes that the signs of 404 diseases are described in the work without indicating their treatment.[223] This characterization points rather to a work like the *Mādhavanidāna* than to the Nidānasthāna of one of the classical saṃhitās, because a restricted number of diseases is dealt with in the latter under that heading. The *Nidāna* is also mentioned by Arabic authors who were earlier than Ibn Abī Uṣaybi'a, namely al-Rāzī and Ibn Wāḍiḥ al-Ya'qūbī.[224] The latter describes it in the same way as Uṣaybi'a. Important new evidence came to light in 1928 with the edition of 'Alī ibn Sahl al-Ṭabarī's Firdaws al-ḥikma, i.e., Paradise of Wisdom.[225] In the so-called Indian books of this treatise[226] several Indian medical works are mentioned: jrk, ssrd, ndān, and aṣhṭānqhrdy, i.e., Caraka, Suśruta, *Nidāna* and *Aṣṭāṅgahṛdaya*. It is highly probable that ndān is the *Mādhavanidāna*, as no other famous Indian book with a similar title could have spread to the Arab world at so early a date (about A.D. 850). This reference to the *Nidāna* is the earliest one known in Arab literature. Because of its importance it may be expedient to summarize the most salient facts about this work and its author.[227]

Abū'l Ḥasan 'Alī ibn Sahl al-Ṭabarī completed his Firdaws al-ḥikma fī'l ṭibb in Sāmarrā in the third year of the reign of the caliph al-Mutawakkil, i.e., in 849/850. It is a work of large scope, giving a survey of the Greek, Syrian and Indian systems of medicine as known to the Muslims. Its arrangement is less methodical than that of later medical works in Arabic, but it is often quoted by al-Rāzī and others. Particularly important is the thirtieth and last section of the Paradise of Wisdom, which deals with Indian medicine. In thirty-six chapters, the majority of which are rather short, it succinctly describes the theory and general therapeutic principles of Indian medicine, while at the end a number of recipes are found. The translation of Sanskrit medical terms into Arabic is usually correct,[228] which indicates that 'Alī ibn Sahl made use

of the translations of Sanskrit medical works executed by order of the first 'Abbāsid caliphs, in particular Hārūn al-Rashīd (768–809), and encouraged by the Barmakids.[229]

The *Nidāna* as a separate book is mentioned once in the Indian books of the Paradise of Wisdom. The term Nidāna appears on two other occasions, where it is not the *Mādhavanidāna* that is referred to, but the Nidāna section of some other treatise. Neither a direct translation of parts of the *Mādhavanidāna* is traceable nor of passages from the *Caraka-*, *Suśruta-* and *Aṣṭāṅgahṛdayasaṃhitā*, for 'Alī ibn Sahl only gives summaries of Indian medical doctrines.

Accepting the evidence supplied by 'Alī ibn Sahl and later Arabic authors and taking into account the time needed for the work of an Indian writer to become so famous as to be translated into Arabic in Persia, and to be employed as one of his chief sources by an Arabic author in 849/850, it appears reasonable to suppose that Mādhava lived in the eighth century.

The *Vyākhyāmadhukośa*

The *Vyākhyāmadhukośa*,[230] often simply called *Madhukośa*,[231] is an elaborate and valuable commentary which covers the whole of the *Mādhavanidāna*.[232] It is the earliest commentary on Mādhava's treatise and gives the impression that it is not only based on works of predecessors. The first half, up to chapter thirty-two, was written by Vijayarakṣita, the second half is due to his pupil Śrīkaṇṭhadatta. Both authors quote many authorities. Vijayarakṣita presents a list of those regarded as important in the introductory verses of the *Madhukośa*: Bhaṭṭāra(haricandra), Jejjaṭa, Gadādhara, Vāpyacandra, Śrīcakrapāṇi(datta), Bakula, Īśvarasena, Bhoja, Īśāna, Kārttika(kuṇḍa), Sukīra, Sudhīra, Maitreya, and Mādhava.

Quoted or referred to in Vijayarakṣita's part of the *Madhukośa* are: *Abhidhāna* (2.10–11),[233] Agniveśa (2.66cd–74ab), Amara (1.1), Āṣāḍhadharma (1.14cd–15ab), Bakulakara (6.15; 22.1–4), Bhāluki (2.24, 31cd–32ab, 75), *Bhālukitantra* (2.18–23, twice), Bhaṭṭārahariandra (1.4; 1.5a–c, four times; 1.10, twice; 2.1 and 61cd–65; 28.3),[234] Bheḍa (2.37–38), Bhoja (3.21; 5.1; 17.14–15ab; 18.4–6), Cakra (2.18–23, twice; 2.30cd–31ab, 61cd–65, 66cd–74ab; 5.31–32; 8.1 and 10; 12.27–34; 20.5; 22.57cd–58ab), Candrikākāra (2.61cd–65; 10.20; 22.1–4, 15, 27–28ab), Caraka (often), Dṛḍhabala (2.18–23, three times; 8.2; 12.1–2; 16.8cd, twice; 17.15cd–16ab; 22.14–15ab, 28cd–32ab, 44–47ef; 24.1–5; 29.6; 30.1–2; 32.1–3a), Gadādhara (1.4 and 11–13; 2.8–9, 40, 42–47; 3.4; 3.9–10, twice; 5.31–32; 6.5–6; 10.19c–f; 11.1–2; 16.1–2; 22.38cd–39ab and 39cd–41), Gautama (5.33–34), Gayadāsa (2.18–23; 9.11 and 12–14; 11.12–13; 12.8 and 11–14; 18.7; 22.57cd–58ab, 58cd–59ab, 59cd–60ab, 68cd–70ab, 70cd–72; 28.2, 3, 14; 29.2 and 6), Guṇākara (5.31–32), Haricandra (1.5a–c and 15cd–18; 2.34–36ab and 39; 2.61cd–65, twice; 18.9; 28.3),[235] Hārīta (1.5d–6; 2.15cd–16, 37–38, 61cd–65; 2.66cd–74ab, twice; 3.21; 8.2; 16.5; 22.57cd–58ab, twice; 26.1; 29.6), *Harivaṃśa* (2.1), Īśāna(deva) (2.34–36ab; 22.22–26, 28–32ab, 54–56; 23.1–3; 24.6–10), Īśvarasena (1.7), Jatūkarṇa (2.55, twice; 2.61cd–65; 12.11–14), Jejjaṭa (1.4, 5d–6, 11–13; 2.2, 3, 10–11, 18–23, 24, 26–30ab; 2.30cd–31ab, twice; 2.37–38, twice; 2.39, twice; 2.40; 2.42–47, twice; 2.59.61ab; 2.61cd–65, twice; 2.66cd–74ab, three times; 3.4, 9–10, 14–19, 20; 5.3–4; 6.5–6 and 23; 8.1; 8.8–10 (twice); 8.11, 12–15, 19cd–21ab; 9.6–7ab and 12–14; 10.2; 10.21–29ab, twice; 11.12–13; 12.8, 11–14, 18–20, 27–34; 12.35–36, three times; 16.10; 17.6, 14–15ab, 16cd–18; 18.9 and 22; 19.7–8; 20.4, 5, 6; 20.26, twice; 20.29–30, twice; 22.6–9, twice; 22.37cd–38ab, 58cd–59ab, 70cd–72; 24.1–5; 28.2, 3, 15–16; 29.2 and 6), Karavīrācārya (3.14–19), Kārttika(kuṇḍa) (1.5d–6; 2.3, 4–7, 8–9, 10–11, 15cd–16; 2.48–54, three times; 2.61cd–65, twice; 2.66cd–74ab; 3.1–3 and 9–10; 5.43; 6.15; 9.11; 10.2 and 14; 22.15, 64cd, 68cd–70ab, 70cd–72; 27.2–12), kāśmīrāḥ (5.27cd–30; 10.5; 14.2), *Kāśmīrapāṭha* (2.18–23), Kharanāda (2.34–36ab and 61cd–65), Kṣārapāṇi (3.11; 28.3), Mādhava(kara) (1.5d–6, twice; 2.66cd–74ab; 10.8–12; 11.12–13; 22.44–47ef; 22.65ab, twice), *Nāgabhartṛtantra* (2.37–38), Nāgārjuna's *Ārogyamañjarī* (6.5–6), Pālakāpya (2.1), Parāśara (1.5d–6; 2.39; 3.21; 8.8–10), *Praśnavidhāna* (1.14cd–15ab), *śālākya* (22.65ab), *Saṃgraha* (30.1–2), Sudāntasena (1.5a–c and 8–9), Suśruta (often), Svāmidāsa (1.14cd–15ab), Tīsaṭācārya (1.5a–c), Vāgbhaṭa (often), Vāpyacandra (1.4 and 5d–6; 1.8–9, twice; 1.11–13, twice; 1.15cd–18; 2.39; 28.2 and 3), Varāha (22.80), Videha (2.1, 26–30ab, 42–47; 8.11; 18.10–11; 20.18, twice; 20.24 and 26; 22.22–26), *Vṛddhabhoja* (14.4), *Vṛddhasuśruta* (2.4–7, 26–30ab, 37–38, 39, 42–47; 26.1), and *Vṛddhavāgbhaṭa* (1.8–9; 2.66cd–74ab).

Authorities and works quoted or referred to by Śrīkaṇṭhadatta in his part of the *Madhukośa* are: Agniveśa (44.1), Ālambāyana (69.21cd–25ab and 28), Bhāluki (44.9–10; 49.37–39), Bhoja (33.27–28, four times; 33.34cd–35, twice; 37.7cd–11ab, twice; 38.8cd–9ab, 15, 16–17, 25, 26; 40.10cd–11ab and 17cd–20; 46.1 and 6; 49.17cd–23ab, 25cd–30, 37–39; 52.22cd–24 and 25; 53.3–8ab; 55.1; 55, 11, twice; 55.12, 22–24, 26, 28–29, 32; 55.36, twice; 55.38, 40cd, 41–43, 44–45ab; 55.45cd–47, twice; 55.50–51; 56.1, 9cd–10ab, 15, 27, 35cd–36ab; 56.38, four times; 56.47, 48, 54; 64.2 and 6), Cakra (55.12), Cakṣuṣya (59.88 and 92; 60.6), Candrikākāra (59.95 and 97–98), Caraka (often), Gadādhara (33.13–15ab, 22, 23–25, 34cd–35; 35.15d–17, 21–22c, 22d–24; 41.12; 46.8; 48.1 and 16; 49.17cd–23ab; 56.10–11, 15, 47; 58.1; 59.17, 25, 33cd–35ab, 41ab, 41cd–46, 50cd–51ab, 59, 62cd–64, 65ab, 69cd, 71, 88; 60.1 and 6; 64.7; 69.30–31), Gayadāsa (55.36), Hārīta (40.17ab; 61.6–7), Hiraṇyākṣa (61.6–7; 68.23), Īśāna (33.4), Jatukarṇa (55.12), Jejjaṭa (35.22d–24; 40.11cd–16; 46.2–3ab; 49.17cd–23ab, 25cd–30, 37–39), *Kalyāṇaviniścaya* (59.67cd and 97–98), *kāmaśāstra* (47.1), Karāla (59.17), Kārttika (33.34cd–35; 36.17–20; 38.18–20ab; 45.2cd; 55.28–29; 56.22, 23, 53; 57.5; 58.1; 59.14, 22, 24, 33cd–35ab, 49; 59.50cd–51ab, twice; 59.59, 62cd–64, 65cd, 73ab, 74b–d, 75, 86, 89; 69.21cd–25ab, twice; 69.30–31), Kharanāda (56.38), Kṣārapāṇi (36.17–20), Mādhava(kara) (45.6cd; 59.96; 60.9–10),[236] Nimi (57.8; 59.29, 41ab, 65ab, 80; 60.8), Ravigupta (59.67cd), *śālākya* (60.1), Saṃgrahakāra (38.9cd–10; 56.27),[237] Sātyaki (59.47–48ab, twice; 59.94 and 95; 66.11–13),[238] Suśruta (often), Vāgbhaṭa (often), Vāpyacandra (33.7cd–12), Vātsyāyana (48.1), Videha (55.28–29, twice; 55.30; 56.55; 57.1, 2–3, 4, 6–7; 58.2, 15, 28; 59.15, 18; 59.22, twice; 59.26, three times; 59.28, 29, 33cd–35ab, 47–48ab; 59.60cd–61ab, twice; 59.69cd, 70ab, 70cd, 73cd, 74b–d, 75, 76, 79, 81, 85, 87, 88, 93, 97–98; 60.6 and 8; 60.11–13, twice; 60.14–15; 61.6–7), Viśvāmitra (49.37–39), and *Vṛddhakāśyapa* (69.33–34).

Vijayarakṣita is quoted by Niścalakara,[239] Priyavrat Śarmā,[240] and Śivadāsase-

na.[241] He is referred to by Śailendrasiṃha.[242] The author of the *Madhukośa* (madhukośakṛt) is cited in Āśubodha and Nityabodha Senagupta's commentary on the *Rasaratnasamuccaya* and in the commentary on the *Āyurvedābdhisāra*.[243]

Works and authors quoting the *Madhukośa* are: the commentary on the *Āyurvedābdhisāra*,[244] a gloss on Bhāvamiśra's *Bhāvaprakāśa*,[245] the *Bṛhannighaṇṭuratnākara*,[246] Gulrājśarmamiśra's *Viśikhānupraveśavijñāna*, Kāśirāma,[247] Priyavrat Śarmā's auto-commentary on the *Āyurvedadarśana*, Āśubodha and Nityabodha Senagupta's commentary on the *Rasaratnasamuccaya*, and Satyadeva Vāsiṣṭha's commentary on Rāvaṇa's *Nāḍīparīkṣā*. The *Madhukośa* is referred to in Vācaspati's *Ātaṅkadarpaṇa*.

It is a matter of uncertainty why Vijayarakṣita left his commentary unfinished, though serious consideration should be given to the possibility that death intervened. It is rather generally assumed that Vijayarakṣita was a native of Bengal, which appears to be reasonable, since Niścalakara, who belonged to that region, mentions him as an āyurvedaguru in the introductory verses of his *Ratnaprabhā*. As Vijayarakṣita is called ārogyaśālīyavaidyapati in the colophons of some old MSS of the *Madhukośa*,[248] he is thought to have been in charge of a hospital (ārogyaśālā).[249] The maṅgalācaraṇa of the *Madhukośa*, addressed to Harihara, shows that the author professed Hinduism, which is confirmed by his rejection of a Buddhist theory of knowledge.[250]

Concerning Vijayarakṣita's date one should recall that he refers to Cakrapāṇidatta as one of his sources, which permits us to fix the terminus post quem at about A.D. 1060. A disputed piece of evidence is an old MS of the *Nidāna*, completed in Nepal under the reign of king Jayaratnamalla on December 27, A.D. 1210;[251] the name of the work is *Śāstramadhukoṣa* in the colophon, though it only contains the text of the *Nidāna* with a line-by-line Newari translation; D.Ch. Bhattacharyya claimed that this MS testifies to the reputation of the *Madhukośa* in Nepal shortly after 1200.[252] An important clue to the date of Vijayarakṣita is provided by Niścalakara, who states that he started writing his commentary on the *Cakradatta* after Vijayarakṣita's death. This makes the latter's terminus ante quem depend on that of Niścalakara, who wrote his commentary in the first half of the twelfth century according to D.Ch. Bhattacharyya, which would make it possible to establish Vijayarakṣita's date at about A.D. 1100. P.V. Sharma, who disagrees with D.Ch. Bhattacharyya's chronological scheme, which makes Rāmapāla the patron of Vijayarakṣita,[253] fixed his date at about A.D. 1200;[254] later, the same author preferred placing him during the reign of Viśvarūpasena or Keśavasena,[255] the last notable kings of the Sena dynasty.[256] G. Hāldār[257] regards Vijayarakṣita as the son of a daughter of Keśavasena, which would make him live in the second half of the thirteenth century. J. Jolly[258] even supposed the *Madhukośa* to have been written in the fourteenth or fifteenth century.

Vijayarakṣita's date ultimately depends on the period of time that elapsed between his death and the composition of Niścalakara's *Ratnaprabhā*. Niścalakara declares that he decided to write his work because the interpretation of the *Cakradatta* had become obscured after the demise of the āyurvedaguru Vijayarakṣita. P.V. Sharma asserts that this remark proves that in Vijayarakṣita's times the *Cakradatta* was studied, next to Vṛnda's *Siddhayoga*, but had not yet become authoritative, as attested by the fact that Śrīkaṇṭhadatta, who is later than Vijayarakṣita, chose to comment on the *Siddhayoga*.[259]

Vijayarakṣita, however, quotes Cakrapāṇidatta, whose treatises were available to him.

Vijayarakṣita's intimate acquaintance with the *Cakradatta* is attested by some quotations in the *Ratnaprabhā*, if Rakṣitapādāḥ is identical with Vijayarakṣita. Niścala's remarks on Rakṣitapādāḥ's opinion ad grahaṇī 4[260] and 13[261] may refer to Vijayarakṣita. The same applies to the quotations ad arśas 100–103,[262] agnimāndya 5,[263] krimi 5,[264] and nāḍīvraṇa 5.[265] A crucial passage is found in the *Ratnaprabhā* ad pāṇḍuroga 35–40, where Niścala reproduces a variant of verse 40, read by Rakṣitapādāḥ. Pāṇḍuroga 40 consists of an addition of Cakra, called a ṭippaṇī, to 35–39 (the formula of tryūṣaṇādimaṇḍūra), quoted from the *Carakasaṃhitā* (Ci.16.73–77). Cakra's ṭippaṇī is absent from the *Siddhayoga*,[266] which proves that Rakṣitapādāḥ disposed of the text of the *Cakradatta*. The identity of Niścala's Rakṣitapādāḥ with Vijayarakṣita is supported by the remarkable similarity between his views and those of his pupil Śrīkaṇṭhadatta as expresed in the latter's *Kusumāvalī*.

Some of Niścala's quotations are not from Rakṣita's interpretation of the *Cakradatta*, but from a medical treatise that had chapters on pharmaceutical preparations, weights and measures, etc.[267]

D.Ch. Bhattacharyya set up the hypothesis that Niścalakara was one of Vijayarakṣita's pupils.[268] His main argument is the mention of Vijayarakṣita as an āyurvedaguru in the introductory verses of the *Ratnaprabhā*. P.V. Sharma rejects this view, advancing that the introductory verses mean to say that Niścala wrote his commentary after a considerable interval of time had passed since Vijayarakṣita's death, during which period the interpretation of the *Cakradatta* had suffered from bad explanations.[269] Niścala's own words, however, do not hint at Vijayarakṣita's death as an event that occurred a long time ago, but only express that his commentary will make the precious *Cakradatta* recover the splendour (tviṣ) that got lost owing to bad interpretations (kubodha) since the guru Vijayarakṣita passed away. He adds that he plans to achieve this aim by consulting other treatises and by having recourse to the words of his guru (gurūkti). He does not inform his readers who his guru was, although the latter is repeatedly quoted and referred to.[270]

Niścalakara belonged to the tradition established by Vijayarakṣita according to P.V. Sharma, who is of the opinion that this tradition is referred to as guruparamparā and gurusampradāya in the *Ratnaprabhā*.

Earlier, A.F.R. Hoernle[271] had dated Vijayarakṣita to about A.D.1240, on insufficient grounds, which were refuted by D.Ch. Bhattacharyya.[272] Hoernle's opinion on Vijayarakṣita's date was based, amongst other things, on the rejection of a certain doctrine concerning the structure of the eye in the *Madhukośa*.[273] He was wrong in attributing this rejection to Vijayarakṣita, because it is found in the latter part of the *Madhukośa*, due to Śrīkaṇṭhadatta. Furthermore, he supposed that the doctrine in question, not ascribed to a named authority, derived from Aruṇadatta, whereas the latter, who may have lived in the same age as Vijayarakṣita and Śrīkaṇṭhadatta,[274] is not quoted in the *Madhukośa*. Since Hoernle determined Aruṇadatta's date as about A.D. 1220, he fixed Vijayarakṣita's date at about A.D. 1240.[275] Another point put to use by Hoernle in order to establish Vijayarakṣita's date was a quotation from Guṇākara in the *Madhukośa*,[276] wrongly regarded by him as the author of the *Yogaratnamālā*, written in 1239. Actu-

ally, the medical author Guṇākara, quoted by Vijayarakṣita, is entirely different from the Jaina scholar of the same name who wrote a commentary on the *Yogaratnamālā* in 1239/40. These remarks may suffice to demonstrate that Hoernle's manner of determining Vijayarakṣita's chronological position can now be disregarded.

A precise determination of Vijayarakṣita's date remains fraught with problems, but no doubt exists regarding his relative chronological position between Cakrapāṇidatta and Śrīkaṇṭhadatta, which means that he lived in the twelfth century.

Śrīkaṇṭhadatta wrote, besides the latter half of the *Madhukośa*, a commentary on Vṛnda's *Siddhayoga*. He was a pupil of Vijayarakṣita, as stated in the introductory verses to his part of the *Madhukośa*, and probably completed the task of his teacher after the latter's death, which implies that he lived in the twelfth century.[277] P.V. Sharma suggests that Śrīkaṇṭha was the grandfather of Niścalakara.[278]

A medical authority Śrīkaṇṭha, who was the author of the *Amṛtavallī*, is quoted by Niścalakara.[279] Some regard him as identical with the commentator,[280] which is not defensible, because Niścala informs us that this Śrīkaṇṭha preferred a particular reading of a verse of the *Siddhayoga* on the strength of a ṭippaṇī of Vṛnda, which is in this case a remark found in Śrīkaṇṭhadatta's *Kusumāvalī*;[281] this proves that the author of the *Amṛtavallī* is posterior to Śrīkaṇṭhadatta. The *Amṛtavallī* was a therapeutic treatise in verse, as shown by Niścala's quotations.[282]

Vācaspati

Vācaspati's commentary on the *Mādhavanidāna*, called *Ātaṅkadarpaṇa*,[283] is not a very original work, as it frequently follows earlier writers[284] and leans heavily on the *Madhukośa*.[285]

Authorities and works quoted or referred to by Vācaspati are: *Abhidhāna* (55.38),[286] *abhidhānāntara* (2.10–11;[287] 17.1–5),[288] Ālamvāyana (69.21cd–25ab and 28), Aruṇadatta (2.56–57), Bakula (6.15), Bhāluki (2.18–23; 2.24, twice; 2.74; 44.9–10), Bhaṭṭārakahariścandra (28.3),[289] Bheḍa (2.37–38; 60.14–15), Bhoja (3.21; 5.1; 17.14–15ab; 18.4–6; 37.7cd–11ab; 38.1, 8cd–9ab, 15, 16–17, 25, 26; 40.10cd–11ab; 46.6; 49.17cd–23ab and 25cd–30; 56.1, 9cd–10ab, 15, 28–29, 35cd–36ab, 36cd–37, 38, 47, 48, 54; 49.37–39; 52.22cd–24 and 25; 53.3–8ab; 55.3, 12, 22–24, 26; 55.36, twice; 55.38, 40cd, 41–43, 44–45ab, 45cd–47, 50–51; 64.2 and 6), Bhṛgu (introduction), *Brahmavidyārahasya* (introduction),[290] Cakra (5.31–32; 8.8–10; 20.5), Cakṣuṣya (59.88), Candranandana (2.56–57), Caraka (passim), Ḍalhaṇa (21.8–9; 43.3; 56.27; 57.16; 69.4–8ab), Dṛḍhabala (2.18–23; 8.2; 12.1–2; 16.8cd, twice; 17.15cd–16ab; 22.12–13 and 44–47ab; 24.1–5; 29.6; 32.1–3a), Gadādhara (2.18.23 and 42–47; 3.9–10; 5.31–32; 10.19; 22.38cd–39ab and 39cd–41; 28.2; 33.23–26; 35.15d–17; 48.1 and 16; 56.10cd–11 and 15; 59.17),[291] *Gajavaidyaka* (2.1),[292] Gautama (5.33–34), Gayadāsa (2.18–23 and 40; 9.11; 12.8 and 11–14; 16.1–2; 22.59cd–60ab, 68cd–70ab, 70cd–72; 28.3; 29.2),[293] Guṇākara (2.31–32), Hariścandra (28.3),[294] Hārīta (2.15cd–16, 26–30ab, 37–38; 3.21; 16.5; 26.1; 40.17ab; 61.6cd–7), *Harivaṃśa* (2.1), Hiraṇyākṣa (61.6cd–7; 68.23), Īśāna (22.22–26 and 54–55ab; 23.1–3), *Jagadvaidyaka*,[295] Jejjaṭa (2.34–36ab, 37–38, 42–47; 8.8–10; 9.6–7ab; 10.21–29ab; 12.8, 11–14, 18–20, 27–34, 35–36; 16.10; 17.6; 18.22cd; 19.7; 20.4, 5, 29; 22.6–8 and 70cd–72; 24.1–5; 28.2, 3, 15–16; 29.2), *jyotiḥśāstra* (18.10–11), *Kāmasūtra* (47.1), Kāṇāda (introduction), Kapila (introduction), Karāla (59.17), Karavīrācārya (3.14–19), Kārttika (22.64cd, 68cd–70ab, 72; 55.28–29; 56.22; 58.1; 59.14 and 59; 69.30–31), kāśmīrāḥ (10.5), *Kāśmīrapāṭha* (2.18–23), Kharanāda (2.34–36ab), Kṣīrapāṇi (28.3; 36.17–20), Mādhava(kara) (5.31–32; 6.23; 17.20; 23.14–18; 59.96; 69.39–41ab), *Mādhavasaṃgraha* (introduction), *Madhukośa* (introduction; 2.61cd–65), Nimi (57.8; 59.29, 41ab, 70ab, 80, 85, 87), Parāśara (3.21), Saṃgrahakāra (56.20 and 28–29), Sātyaki (59.47), Suśruta (passim), Tārkikavara (introduction), Vāgbhaṭa (often), Vāpyacandra (2.39; 28.2 and 3; 33.7cd–12), Varāhamihira (22.80), *Vārttika* (2.32cd–33),[296] Vātsyāyana (48.1), Videha (2.1, 26–30ab, 42–47; 8.11; 14.2; 18.10–11; 20.18, 24, 25; 55.28–29 and 30; 56.55; 57.1, 2–3, 4, 6–7; 58.2, 7, 9cd, 10, 15, 20cd–21ab; 59.15, 18, 22, 26, 28, 29, 33cd–35ab, 60cd–61ab, 66, 69cd, 70cd, 73cd, 74, 75, 76, 88, 92,[297] 93; 60.6 and 11–13; 61.6cd–7), *Vṛddhabhoja* (14.4), *Vṛddhakāśyapa* (69.33–34), and *Vṛddhasuśruta* (2.34–36ab and 42–47; 26.1).[298]

A Vācaspati is quoted in Ṭoḍara's *Āyurvedasaukhya*[299] and in the *Vīrasiṃhāvaloka*.[300]

In the introduction to his commentary the author informs us that his father, Pramoda, was chief physician at the court of Hammīra, and that his elder brother, Raiśarman, was one of the paṇḍits at the court of Muhammad.[301]

Vācaspati's father's patron, Hammīra, was identified by Hoernle[302] as Amīr Mu'izzuddīn Muḥammad, i.e., Muḥammad Ghorī, who reigned in Delhi from A.D. 1193 to 1206.[303] As pointed out by P.V. Sharma[304] and J. Filliozat,[305] this identification cannot be maintained. P.V. Sharma holds that Hammīra was the famous king of Raṇthambhor (Raṇastambhapura) (A.D. 1283–1301),[306] the last of the Cāhamānas, to whom the *Hammīramahākavya* by the Jain author Nayacandrasūri[307] is devoted, and who was attacked, defeated and killed by 'Alā-ud-Dīn Khaljī. Raiśarman is supposed to have resorted to the court of Muḥammad b. Tughluq (1325–1351),[308] i.e., the Muhammad mentioned by Vācaspati, after Hammīra's defeat and death. P.V. Sharma dates Vācaspati therefore to about A.D. 1340.[309] J. Filliozat, rightly observing that several persons called Hammīra are known in Indian history, is inclined to see Pramoda's patron Hammīra as the Mahārāṇā of Mewār, who recovered Chitor, several years after 'Alā-ud-Dīn had reduced it to submission in 1303.[310] J. Filliozat identified Raiśarman's patron as Muḥammad Shāh I Bahmanī, who reigned from A.D. 1358 to 1377.[311] He concluded that Vācaspati must have written his commentary around the middle of the fourteenth century. The quotations in this commentary are not of much avail in establishing his date, since the latest author quoted by him is Ḍalhaṇa.

Chapter 6
Vṛnda

Vṛnda is the author of the *Siddhayoga*.[1]

Contents

The *Siddhayoga* is a work on therapeutics in 3,728 verses and some prose,[2] arranged in eighty-two chapters.

The first verse is in praise of Śiva and Caṇḍī, Dhanvantari, Suśruta and other sages, and Ātreya. The author declares in the second verse that the order of the diseases in his work will agree with the scheme of (Mādhava's) *Gadaviniścaya* (i.e., the *Mādhavanidāna*), and that he is going to set forth therapeutic procedures from various sources,[3] accompanied by remarks suited to the occasion.[4] After twenty-one verses on general principles of pathology and therapy, Vṛnda proceeds with the treatment of fevers, the main subject of chapter one, which is followed by sixty-seven more chapters, arranged for the greater part, in fact, along the lines of the *Mādhavanidāna*. The treatise ends with chapters on rasāyana (69) and vājīkaraṇa (70), a series of nine chapters on sneha, sveda, vamana, virecana, bastividhi, nirūha, dhūmavidhi, nasya, and kavala, and three chapters on ariṣṭa, svastha, and various topics (miśraka).[5] Usually, the chapters are almost exclusively on therapy, but some stray verses on symptomatology, etc., appear occasionally.[6] Diseases not dealt with in earlier works are, however, fully described as to their pathogenesis, symptoms, etc.

Although Vṛnda adopted Mādhava's scheme, the arrangement of the chapters of the *Siddhayoga* differs slightly from that of the *Rogaviniścaya* in having a separate chapter on jvarātisāra (2), separate chapters on śūla (26) and pariṇāmaśūla (27), udāvarta (28) and ānāha (29), udara (37) and śothodara (38),[7] bālaroga (66) and bālagraha (67). On the other hand, there are only two chapters on vraṇa, namely vraṇaśotha (44) and āgantuvraṇa (45),[8] and three on women's diseases, namely pradara (63), yoniroga (64),[9] and strīroga (65).[10] The disease called yonikanda, introduced by Mādhava in a separate short chapter, is mentioned once under the name of bhagaphala.[11] [12] Vṛnda failed to deal with the treatment of a number of kṣudrarogas, namely yavaprakhyā, kakṣā, niruddhaprakaśa, agnirohiṇī, and saṃniruddhaguda.[13]

The contents of Vṛnda's work appear to be taken largely from earlier works, in conformity with his own statement on this matter, but he does not specify his sources, except for a few isolated occurrences, where Caraka,[14] Jejjaṭa,[15] Vāgbhaṭa,[16] and the vṛddhavaidyāḥ[17] are mentioned.

Vṛnda's sources have not yet been studied in detail,[18] but it is clear from a com-

parison with the *Cakradatta* and Niścala's commentary on that work that he borrowed extensively from Caraka,[19] Suśruta,[20] Vāgbhaṭa,[21] and Ravigupta's *Siddhasāra*.[22]

Some other sources are: Acyuta's *Āyurvedasāra*,[23] Amitaprabha,[24] *Amṛtamālā*,[25] an *Aśvavaidyaka*,[26] Bhadravarman,[27] Bhāluki,[28] Bhela,[29] Bindusāra,[30] Cakṣuṣyeṇa,[31] *Carakottaratantra*,[32] *Cikitsātiśaya*,[33] Hārīta,[34] Kṛṣṇātreya,[35] *Madhyavāgbhaṭa*,[36] *Nāvanītaka*,[37] Puṣkalāvata,[38] Ugrasena,[39] Videha,[40] and *Yogaśata(ka)*.[41]

One verse may derive from the *Mahābhārata*.[42] One stanza may be based on an explanation in prose by Udbhaṭa.[43]

The *Mādhavacikitsā*, however, was probably unknown to Vṛnda.[44]

Vṛnda's activity was not restricted to the collection and selection of appropriate verses from predecessors. As he mentions himself at the beginning of his treatise, he intended to add suitable remarks to the prescriptions taken from various sources. A series of remarks in the commentary on the *Siddhayoga* amply proves that this intention was carried into effect. A number of verses or parts of verses are explicitly attributed to Vṛnda,[45] and, as one of these is called a ṭippaṇikā of Vṛnda,[46] it may be be justified to assume that other verses, similarly called ṭippaṇa or ṭippaṇī,[47] also derive from the author.[48] Niścalakara twice quotes a *Vṛndaṭippaṇī* in his *Ratnaprabhā*.[49]

Some verses composed by Vṛnda can be identified by help of the commentaries of Niścalakara and Śivadāsasena on the *Cakradatta*.[50] Some more contributions of Vṛnda are easily recognized as such.[51]

Remarks of Vṛnda, expressing his own opinion on particular subjects, conflicted occasionally with the views or explanations of other authorities, and were not always to the liking of the commentator on the *Siddhayoga*.[52] Niścala and Śivadāsasena indicate, in their commentaries on the *Cakradatta*, that Cakrapāṇi incidentally modified Vṛnda's verses.[53] Both commentators repeatedly criticize Vṛnda's views.[54]

Śivadāsasena repeatedly employs the term vṛndaṭippaṇī or -ṭippaṇikā when he refers to the *Vyākhyākusumāvalī*.[55] This illustrates that the terms ṭippaṇa, etc., were used both to denote short remarks by a compilator like Vṛnda, and comments by a later author on the work of a predecessor, like, for example, the *Lakṣmaṇaṭippaṇaka* on the *Suśrutasaṃhitā*, quoted by Ḍalhaṇa.[56]

Authors and works quoting from or referring to Vṛnda are: Āḍhamalla,[57] Ananta in the *Pratāpakalpadruma*, Āśubodha and Nityabodha Senagupta in their commentary on the *Rasaratnasamuccaya*, Bhāvamiśra,[58] Devasiṃha Viṭṭhal in his *Bṛhadāsavāriṣṭasaṃgraha*,[59] Gopāladāsa in the *Cikitsāmṛta*, Gopāladāsa Vādīndra in the *Cikitsāsāra*,[60] Harṣakīrti in the *Yogacintāmaṇi*, Hemādri,[61] Jagannātha in the *Yogasaṃgraha*, Jayaratna in the *Jvaraparājaya*, Jñārasarāmaśarman's version of the *Amṛtasāgara*,[62] Karandīkar's *Nidānadīpikā*,[63] Kāśīrāma,[64] Lakṣmīrāma,[65] Meghamuni in the *Meghavinoda*, Niścalakara,[66] the *Pākamārtaṇḍa*,[67] Rāmacandra's *Rāmavinoda*, the *Ratnasāgara*, Śivadāsasena in his commentary on the *Cakradatta*,[68] Śivamiśra in the *Vaidyaśāstraśivānubhava*, Ṭoḍara,[69] Trimalla,[70] Kṣemāditya Paṇḍita Vāsudeva in the *Vāsudevānubhava*, Viṣṇudeva in the *Rasarājalakṣmī*, the *Yogaratnākara*,[71] and Yogīndranāthasena in his commentary on the *Carakasaṃhitā*.[72]

A *Vṛddhavṛnda* is quoted in Vācaka Dīpacandra's *Laṅghanapathyanirṇaya*. The au-

thor of the *Siddhayoga* is referred to as Vṛndakuṇṭha by Śrīkaṇṭhadatta in the introduction to his commentary on the work. Niścalakara and Śivadāsasena[73] call him sometimes Vṛndakuṇḍa.

Authors and works quoting from or referring to the *Siddhayoga* are: Anantakumāra,[74] Āśubodha and Nityabodha Senagupta in their commentary on the *Rasaratnasamuccaya*, the *Bhesajjamañjūsāsannaya*, Hemādri,[75] Niścalakara,[76] Śivadāsasena,[77] and Yogīndranāthasena in his commentary on the *Carakasaṃhitā*.[78] The *Vṛndamādhava* (i.e., the *Siddhayoga*) is quoted in Rājeśvaradatta Miśra's *Svasthavṛttasamuccaya*; it was one of the sources of the *Bheṣajasaṃhitā*, *Rasayogasāgara*, and *Rasoddhāratantra*.

Vṛnda's work is called *Vṛndasaṃgraha* in Niścalakara's *Ratnaprabhā*,[79] Raṅgajyotirvid's *Vicārasudhākara*, Śivadāsasena's commentary on the *Cakradatta*,[80] and the *Vīrasiṃhāvaloka*. It is also recorded in manuscript catalogues as *Vṛndagrantha*,[81] *Vṛndavaidyaka*,[82] *Vṛndavaidyakaśāstra*,[83] and Vīravṛndabhaṭṭa's *Vṛnda*.[84] *Vṛndamādhava* is a second title of the *Siddhayoga*.[85] Manuscript catalogues mention a *Vaidyavṛnda*,[86] *Vṛndasaṃhitā*,[87] and *Vṛndasindhu*,[88] works which may or may not be identical with the *Siddhayoga*. A *Pathyāpathyavidhi* by Vṛnda is also known,[89] as well as a *Siddhayogasaṃgraha*, said to be an abridgment of the *Siddhayoga* by the author himself.[90]

The quotations prove that Vṛnda's work became well known and remained popular, at least until the times of Cakrapāṇidatta.[91] Later, Hemādri still quoted from it extensively.

Special features[92]

The *Siddhayoga* contains the earliest descriptions of two new diseases, snāyukaroga and vardhma.

The pathogenesis, symptoms and treatment of snāyukaroga, i.e., dracontiasis or the Guinea worm disease,[93] caused by the infestation of the human organism by a nematode, *Dracunculus medinensis* Linn., is lucidly described in the last part of the chapter on visphoṭa (55.15–19). The commentary refers to the fact that this disorder is prevalent among the inhabitants of western countries.[94]

The aetiology, etc., of vardhma is dealt with in the chapter on vṛddhi (40.20–23). This disorder, incidentally referred to earlier,[95] acquired an independent status after Vṛnda characterized it as such.[96] The identity of this disease, showing distinctive swellings in the groins, has still to be determined.[97]

Vṛnda employs the term niścāraka for a type of diarrhoea.[98] The vāta disease called kubjatva (hump-backedness), absent from the *Mādhavanidāna*, but mentioned by Caraka[99] and Vāgbhaṭa,[100] is described by Vṛnda (22.34).

Noticeable features of the *Siddhayoga* with respect to treatment are: the prescription, probably the earliest one recorded, of pārasīyayavānī[101] against worms inside the body (7.1) and of an ointment made of the juice of dhattūra[102] and mercury (rasendra) against lice (7.13); a decoction of aśoka bark is prescribed against uterine bleeding (63.5);[103] the medicine against eye diseases called nāgārjunavarti, the formula of which is said to have been written by Nāgārjuna on a pillar in Pāṭaliputra (61.148–152), may be

found for the first time in the *Siddhayoga*.[104] Many more recipes occurring in Vṛnda's work are remarkable and deserving of further study.[105]

The *Siddhayoga* is one of the earliest therapeutic works to prescribe ābhā.[106] Interesting is the use of the plant name kāmācī instead of kākamācī[107] and the description of the plant called vārāhīkanda.[108] Opium and Cannabis are absent from Vṛnda's materia medica and iatrochemistry is still of small importance.[109]

Religious elements are not uncommon in the treatments described in the *Siddhayoga*.[110] A yantra, called ubhayatriṃśaka, is also described.[111] Prāṇāyāma is recommended in patients suffering from śūla.[112] A single reference to śūnyatā may point to Vṛnda's acquaintance with Buddhist doctrines.[113]

A single piece of evidence is sometimes considered to indicate that an author called Vṛnda wrote some explanatory work. This evidence consists of a remark in the *Kusumāvalī*, relating to a group of verses from the *Carakasaṃhitā*,[114] which says that Vṛnda explained a particular compound as a dvandva.[115]

The author

No particulars about Vṛnda are known, except that he may have lived in Eastern Bengal,[116] i.e., the country now called Bangla Desh. Niścalakara mentions that Vṛnda belonged to Varendra, a region referred to in the *Siddhayoga*.[117] Confusion on the identity of the author of the *Siddhayoga* was formerly created by Hoernle, who held the opinion that the treatise had been written by Mādhavakara, and claimed that the *Rogaviniścaya* and the *Siddhayoga* were clearly the two parts of a single work by one author.[118] Hoernle was unaware of the existence of the *Mādhavacikitsā*.

P.V. Sharma[119] is convinced that there were two medical authors of the name of Vṛnda, namely the author of the *Siddhayoga* and a later one, called Vṛndakuṇḍa, who probably descended from Kārttikakuṇḍa. He regards the latter, quoted by Niścalakara and Śivadāsasena, as the author of a commentary on the *Carakasaṃhitā*, known as *Vṛndaṭīkā* or *-ṭippaṇa*, referred to by Āḍhamalla.[120] The evidence available is not strongly in favour of this hypothesis. Niścalakara and Śivadāsasena seem to refer indiscriminately to Vṛnda and Vṛndakuṇḍa, and Āḍhamalla mentions an author of glosses, who may well be the author of the *Siddhayoga* himself. A *Vṛndaṭīkā* is quoted in the *Bhāvaprakāśa*.[121]

G. Hāldār claimed that Vṛndakuṇḍa, also called Vṛndāvana, was the author of the *Vṛndasindhu* (i.e., the *Siddhayoga*, accompanied by a ṭippaṇa) and a work called *Padaviniścaya*.[122]

Date

Regarding the date of the *Siddhayoga* J. Jolly[123] rightly remarked that it must have been composed at least a century before Cakrapāṇidatta, because it had become an authoritative work in the latter's time. The reference to Mādhava's *Rogaviniścaya* in the *Siddhayoga* implies that Vṛnda is posterior to Mādhava. D.Ch. Bhattacharyya[124]

based his date of Vṛnda (A.D. 975–1000) on the absence of borrowings from Māhuka's *Haramekhalā* (dated by him in A.D. 965) and from Candraṭa (dated by him in A.D. 950), both quoted in Cakrapāṇidatta's *Cikitsāsaṃgraha.*[125] He concluded that Vṛnda must have been a contemporary of Candraṭa and Māhuka, though his arguments do not preclude an earlier date. P.V. Sharma[126] places Vṛnda in the ninth century on account of the mention of Jejjaṭa in the *Siddhayoga.*[127] Jejjaṭa's date, however, is earlier in my opinion. The allegation, emanating from M.Z. Siddiqi,[128] that the *Siddhayoga* is referred to by Ibn Wāḍiḥ al-Ya'qūbī,[129] who lived in the second half of the ninth century, can be dismissed, since the work mentioned by this Arab author proves to be Ravigupta's *Siddhasāra.*[130]

The conclusion to be drawn concerning Vṛnda's date is that he lived later than Mādhava, the author of the *Nidāna*, and earlier than Cakrapaṇidatta, probably in the period 800–950.[131]

A work related to the *Siddhayoga* is Balibhadra's[132] *Vṛndasaṃgrahaśeṣa*, known in a single, old, incomplete MS.[133]

Commentaries

The only commentary on the *Siddhayoga* that has been preserved is the *Vyākhyākusumāvalī.*[134] Stray evidence shows that this has not always been the case, for the *Kusumāvalī* contains two references to an earlier commentary,[135] and Śivadāsasena's commentary on the *Cakradatta* quotes Candraṭa's *Vṛndaṭīkā.*[136] Furthermore, Āḍhamalla[137] cites the author of a ṭippaṇa on Vṛnda, whose opinions disagree with those found in the *Kusumāvalī.* Hemādri's quotations from Vṛnda contain short remarks which impress as being from an unknown commentary.[138]

P.K. Gode[139] assumed that a commentary on the *Siddhayoga* had been written by Brahmadeva, an author often quoted in the *Kusumāvalī.*[140] Careful study of these quotations[141] revealed that the majority refer to verses taken from or inspired by Suśruta, which shows that Brahmadeva's commentary on the *Suśrutasaṃhitā* is concerned. The idea, put forward by P.V. Sharma,[142] that Naradatta, Cakrapāṇidatta's teacher, wrote, besides a commentary on the *Carakasaṃhitā*, also one on the *Siddhayoga*, cannot be substantiated, being based on a single reference to a *Naradantavyākhyā.*[143]

The *Vyākhyākusumāvalī*, as it is called in the introductory verses, or, for short, *Kusumāvalī*, is a highly valuable commentary, originally written by Śrīkaṇṭhadatta,[144] and, later on, enlarged by Nārāyaṇa. D.Ch. Bhattacharyya[145] was one of the first to observe that it had not generally been noticed that the *Kusumāvalī*, as it has come down,[146] is actually a revision by a later author, as is evident from its concluding verses where Nārāyaṇa states to have completed Śrīkaṇṭhadatta's commentary by adding notes from Ḍalhaṇa, etc. This statement led J. Jolly[147] astray, who claimed that the *Kusumāvalī* could not have been written before the fourteenth century.[148]

A study devoted to this Nārāyaṇa was written by P.K. Gode.[149] At the end of the *Kusumāvalī*, Nārāyaṇa relates to be a brāhmaṇa of nāgaravaṃśa stock and a son of the

physician Bhābhalla.[150] The nāgaravaṃśa descent of Nārāyaṇa characterizes him as a resident of Gujarāt.[151] The evidence collected by P.K. Gode points to Nārāyaṇa as the grandfather of Ananta, who wrote a work called *Kāmasamūha* in A.D. 1457/1458.[152] This Ananta gives the following information on himself: he belonged to the nāgarajñāti, descended from Bhābhalla, was the son of the mantrin Maṇḍana, a grandson of Nārāyaṇa, and lived in a town founded by Ahimmada.[153] Indications found in the *Kāmasamūha* point to both Ananta and Maṇḍana being physicians.[154] The data available enable us to conclude that Nārāyaṇa lived towards the end of the fourteenth century.[155]

The separation of the two layers present in the *Kusumāvalī* is a difficult task that, nevertheles, can partly be carried out by careful study of the quotations by authors who are earlier than Nārāyaṇa. Fortunately, Niścalakara's references to the views of his guru are for a large part in agreement with opinions expressed in the *Kusumāvalī*, which means that passages of the *Kusumāvalī* that verbally or almost verbally recur in the *Ratnaprabhā* as interpretations ascribed to Niścala's guru are old and not due to Nārāyaṇa.[156] The same applies to Niścala's quotations from Rakṣita(pādāḥ). This state of affairs appears to suggest that Śrīkaṇṭhadatta based himself on the interpretations of his teacher, Vijayarakṣita, in the composition of his commentary on the *Siddhayoga*, for Niścala's guru, by some supposed to be Vijayarakṣita himself, belonged to the line established by Vijayarakṣita and Śrīkaṇṭhadatta.[157]

Another source of information is the *Cikitsāmṛta* of Gopāladāsa. This author, who lived between A.D. 1350 and 1400, often refers to the *Kusumāvalī* and many (twenty-three) times to Śrīkaṇṭha. He preferred Niścalakara's interpretations (on verses common to *Siddhayoga* and *Cakradatta*) to those put forward by Śrīkaṇṭha in the many cases where the views of these scholars clashed.[158] Śivadāsasena's references may also prove to be helpful, since he repeatedly quotes Śrīkaṇṭha(datta) in his commentary on the *Cakradatta.* The numerous citations from Aruṇadatta, Ḍalhaṇa and Hemādri in the *Kusumāvalī* can be put to the credit of Nārāyaṇa on the basis of chronological considerations.

Many notes on the names and the identity of medicinal plants from the *Kusumāvalī* were collected by Bāpālāl Vaidya.[159]

Authors and works quoted or referred to in the *Kusumāvalī* are: Agastya (10.43–51; 80.3), Agniveśa (1.132; 21.5–6; 76.3ab), Ālambāyana (68.5), Aruṇadatta (1.9; 6.19cd; 69.6–7; 82.25), Ātreya (80.1 and 3), Bakula (1.119; 20.24–27), Bāṣpacandra (1.34–35 and 36–37; 6.20; 9.31; 36.17cd; 51.24–28; 72.8ef; 81.41, 42, 46, 48, 51, 52, 56ab), Bhadraśaunaka (62.15–16; 75.2),[160] Bhagadatta (81.47), Bhāluki (1.151–152; 73.4; 74.33), *Bhārata* (1.244),[161] Bhāskara (6.33–42), Bhaṭṭāraka(hariścandra) (6.120cd–121; 80.1 and 3; 81.42, 52, 59),[162] Bhīmadatta (81.41),[163] Bhoja (1.140 and 254; 3.7–8; 41.49, three quotations; 71.10; 76^1.12; 76^6.14; 77.8–9; 78.3 and 5), Bindusāra (1.206ab), Brahmadeva (1.25, 32, 54, 91, 102; 3.23; 30.56; 37.26–27; 47.6cd; 65.1–4; 69.1ab; 70.1; intr. to 76; 76^1.24–27; 76^2.1–2; 78^2.12–19), Cakra(pāṇi) (1.36–37, 52, 55, 76, 95, 114, 128, 157, 252, 254; 3.49–51 and 60–61; 4.17–18; 5.19–21, 50, 112ab, 113cd, 114, 120–121; 6.48–53; 8.23–27; 10.23–28 and 29–42; 12.31–35; 15.3cd; 21.10–14; 22.7–9, 13, 72, 74–78; 30.50–52; 47.19–20; 57.28 and 29; 58.29–31 and 65–66; 62.51–53; 70.22–30;[164] 71.13; 80.3),[165] Candranandana

(6.19cd; 9.31; 73.2), Candraṭa (74.16–17),[166] Caraka (passim), Cyavana (10.29–42), Ḍalhaṇa (more than ninety quotations), *Dravyāvalī* (4.27cd–29; 15–17; 21.10–14), Dṛḍhabala (1.140 and 266; 73.16; 74.20; 76^{1}.4 and 15; prose between 78.1 and 2; 81.46 and 47), Gadādhara (1.53, 67, 75; 5.112; 6.20 and 24; 16.2; 30.38–39; intr. to 31; 41.51; 46.4cd; 47.21; 57.29; 59.13–14; 61.7 and 193; 74.18 and 33), *Gadaviniścaya* (1.2), *gandhaśāstra* (58.65–66), Gayadāsa (23.62; 44.27; 74.33; 75.28; 76^{1}.11 and 12), Gayin (34.11–17; 41.49; 57.1; 61.13–14; 70.4; 71.2 and 9; 76^{6}.9–10; prose between 78.1–2; 78.3; 81.72), Gomin (5.113ab),[167] *Gūḍhapadabhaṅga(ṭippaṇaka)* (41.49), *Haramekhala* (35.21), *Haramekhalā* (57.84), Hariścandra (1.68; 6.9–10; 35.40–42; 77.1),[168] Hārīta (1.53ab and 62; 6.20; 8.1; 11.14–17), Hemādri (1.51–52; 6.19cd; 13.7–8; 82.25 and 27), Īśāna(deva) (1.21 and 233; 10.23–28; 19.1; 22.5cd; 36.17cd; 81.17 and 18; 82.27), Īśvarasena (81.52), Jaijjaṭa or Jejjaṭa (1.254; 4.25–26 and 30–35; 6.19ab and 33–42; 10.11–13; 15.17; 20.24–27; 22.72; 34.11–17; 41.49; 44.5, 27 and 32; 47.21; 49.1; 58.29–31; 61.60, 68,118; 62.42; 71.10; 73.21; 74.33; 76^{2}.1–2; 80.1), Jātūkarṇa (1.63 and 121; 4.27cd–29; 10.23–28; 11.14–17; 37.26–27; 39.29–33; 58.65–66; 59.16–22; 61.6; 77.1), Jinadāsa (10.23–28; 44.32 and 55), *kāmaśāstra* (70.42), Kāṅkāyana (5.41–44), Kapibala (81.46), Karāla (59.13–14; 60.12–13), Kārttika(kuṇḍa) (1.40, 44ab, 67, 68, 231cd, 238, 254; 12.22–24; 14.1 and 2; 16.4 and 8; 17.9; 22.20; 30.16; 33.2 and 3ab; 37.42; 47.13; 48.5; 54.4; 57.29; 58.27 and 29–31; 59.30; 61.193; 70.8–9; 74.32; 75.33; 76^{1}.16), kāśmīrāḥ (74.16–17), Kāśyapa (3.16–17; 70.3; 75.27), *Kātantra* (20.28–29), Khāraṇādi (1.134; 6.19), Kṛṣṇātreya (4.15; 10.23–28; 20.28–29; 77.1; 79.1, 3, 12), Kṣārapāṇi or Kṣīrapāṇi (6.20; 30.60; 37.8), Kusumāvalikāra (76^{6}.13), *Lakṣmaṇaṭippaṇa* (70.48–49), Mādhava (1.25: Śrīmādhava; 2.1: Mādhavakāra's *Nidānasaṃgraha*; 10.43–51: Mādhavakara's *Yogavyākhyā*; 27.1: Mādhavakāra's *Rugviniścaya*; 61.9: Mādhava; 81.3: Mādhava), mahārāṣṭrakāḥ (61.175), maharṣivacana (4.23; 6.120–121), *Mahāvideha* (77.8–9), Medhāvin (5. 120–121),[169] Munidāsa (10.23–28), Nāgārjuna (6.14; 15.15: *Nāgārjunavārttāmālā*; 61.148–152),[170] Naradanta (44.32; 57.71: naradantavyākhyāsaṃpradāya), *Nidānasaṃgraha* (58.29–31 and 52cd),[171] *Nighaṇṭu* (39.5–6), Nighaṇṭukāra (1.201), Nimi (61.13–14; 72.12; 75.27; 77.1 and 8–9), pākhaṇḍikāḥ (81.59),[172] Pañjikākāra (59.26), paramācārya (5.120cd–121), Parāśara (1.40; 3.49–51 and 69), *Prājāpatya* (81.46), Punarvasu (4.15), *rasarasāyanavāda* (3.69), *ratnaparīkṣāśāstra* (22.13), Punarvasu (4.15), Rakṣita (69.23–27),[173] Ravigupta (10.29–42), *Rugviniścaya* (1.2; 27.1; intr. to 54), śālākinaḥ (79.3), *śālākya* (79.10), śālākyavidaḥ (78.3), *Saṃgraha* (82.25 and 27, several times),[174] Saṃgrahakāra(ka) (1.224–225; 30.32; 41.33; 44.46), Sātyaki (61.9), Śaunaka (82.27),[175] *sauśruto granthaḥ* (31.9–10), Soma (82.1–2 and 8–9), *Somaṭippaṇa* (80.1, 4, 14, 26–27; 81.3 and 18), *Somavyākhyā* (1.7), Śrīkaṇṭhapaṇḍita (73.15), Sudāntasena (8.6; 72.3), *sūdaśāstra* (18.18; 62.45), Suśruta (passim), *tantrāntara* (many times), tantrāntarīyāḥ (1.214ab; 5.117–119; 10.84–85; 79.1 and 3; 35.40–42; 81.43–44), ṭīkākārāḥ (1.99cd; 10.29–42), ṭīkākṛt (51.24–28), ṭīkākṛtaḥ (9.21ab and 25), *ṭippaṇī* (23.34–42; 37.31–34), Udbhaṭa (1.49), *Upaskāra* (47.13), Vāgbhaṭa (1.25; 5.117–119; 6.19cd; 9.31; 41.54; 57.84; 58.65–66; 65.6cd; 70.1; 76^{6}.4 and 9–10; 77.8–9; 81.79; 82.20–24, 25, 27), vaidyāḥ (3.9 and 60–61; 23.28; 76^{2}.1–2; 76^{4}.1–3), *Vaidyaka* (81.17), *Vaidyakasiddhānta* (81.3), *Vaidyaprasāraka* (1.128; 4.17–

18; 9.49–56; 11.28–29; 30.27–28; 37.59–61; 40.24–26; 51.22 and 107–110; 58.65–66; 61.170–171; 62.51–53), Vaikāraṇa (58.45cd),[176] Vaṅgasena (9.19), Videha (1.244 and 263; 4.17–18; 59.13–14 and 30; 61.5, 7, 26, 188; 76.11; 77.8–9; 78, 3, 4, prose between 10 and 11, 12, 19; 79.7), Viśvāmitra (5.111 and 112; 30.40–43; 33.2; 66.1), vṛddha (13.4), vṛddhāḥ (1.205; 81.46), *Vṛddhakāśyapa* (12.22–24), *Vṛddhasuśruta* (1.55; 5.64–67), *Vṛddhavāgbhaṭa* (71.3; 76^{6}.14; prose between 78.1 and 2; 78.4 and 11), and vṛddhavaidyāḥ (1.49, 89, 90, 91, 158, 205; 3.9 and 22; 10.43–51; 22.74–78; 25.30–33; 51.107–110; 71.19–20; 75.9).

The author of the *Kusumāvalī* consulted many manuscripts[177] and mentions repeatedly variant readings.[178]

Important are the references to Vṛnda in the text of the commentary. Vṛnda is mentioned ad *Siddhayoga* 1.49, 54, 205, 232; intr. to chapter 2; 2.20; 3.22, 49–51, 60–61; 4.16; 5.19–21 and 113ab; 10.2–3; 11.14–17; 12.22–24 and 25–30; 4.16; 20.30; 22.7–10 and 67–71; 25.30–33; 27.1; 34.10 and 11–17; 39.5–6 and 29–33; 41.53; 51.24–28; 57.8cd–9; 58.29–31; 64.11–17; 65.18; 69.34. The majority of these remarks identify verses or parts of verses composed by Vṛnda and often called ṭippaṇa, ṭippaṇī or ṭippaṇikā. Minor changes in the wording of verses borrowed from an earlier work are also indicated. The explanations of the commentator show that Vṛnda often chose to follow old medical traditions (vṛddhavaidyavyavahāra), not hesitated in deviating from Caraka,[179] accepted teachings from works not mentioned by name,[180] or agreed with the views of Kārttika(kuṇḍa).[181] Vṛnda's views are sometimes criticized in the *Kusumāvalī* as based on confusion[182] or as being not attractive.[183] A few references to Vṛnda[184] may imply that he added explanations to the text of his treatise,[185] unless they allude to an earlier, but lost, commentary. An unidentified Vṛndaṭippaṇakāra, quoted by Āḍhamalla,[186] may also be a commentator on the *Siddhayoga*.

The *Kusumāvalī* is quoted in Gopāladāsa's *Cikitsāmṛta*.[187] Nārāyaṇa refers in his revised version to the Kusumāvalikāra.[188] Śivadāsasena repeatedly employs the term vṛndaṭippaṇī or -ṭippaṇikā when the *Vyākhyākusumāvalī* is meant.[189] Jīvānandavidyāsāgara's commentary on the *Rasendrasārasaṃgraha* contains a quotation from Śrīkaṇṭha[190] that cannot be but from the *Kusumāvalī*. The Vyākhyākusumāvalīkāra and Śrīkaṇṭha are quoted in Āśubodha and Nityabodha Senagupta's commentary on the *Rasaratnasamuccaya*.

Nārāyaṇadāsa and Nārāyaṇāntaraṅga are quoted in the comments on Govindasena's *Paribhāṣāpradīpa*.

Chapter 7
Cakrapāṇidatta

Cakrapāṇi(datta)[1] was the author of the (1) *Cikitsāsaṃgraha*, (2) *Dravyaguṇasaṃgraha*, (3) *Vyagradaridraśubhaṃkara*, (4) a commentary on the *Carakasaṃhitā*, called *Āyurvedadīpikā*,[2] and (5) a commentary on the *Suśrutasaṃhitā*, called *Bhānumatī*.[3] Other works, sometimes attributed to him, are the *Gūḍhavākyabodhaka*,[4] *Muktāvalī*,[5] *Sarvasārasaṃgraha*,[6] and *Vyākaraṇatattvacandrikā*.[7]

1 The *Cikitsāsaṃgraha*

The *Cikitsāsaṃgraha*,[8] also called *Cakradatta* and *Cakra(datta)saṃgraha*, is a therapeutic treatise of the same type as Vṛnda's *Siddhayoga*.[9]

Contents

The work consists of about 4,800 verses and some prose,[10] arranged in seventy-nine chapters. The maṅgalācaraṇa is in praise of the Trimūrti. In the second verse the author, who calls himself Cakrapāṇi, declares to have made a collection of various famous formulae, accompanied by explanations of obscure meanings (gūḍhavākyabodhakavākya). After a verse on the basic attitude to be adopted by a therapist, Cakrapāṇi begins at once expounding the rules concerning the treatment of fevers. Verses on nidāna are absent.[11]

Chapters one to sixty-five are arranged in conformity with the scheme of the *Mādhavanidāna*, except for a number of minor deviations. These changes consist of separate chapters on jvarātisāra, śūla and pariṇāmaśūla, udāvarta and ānāha, udara and plīhayakṛt (swelling of spleen and liver);[12] the Cakradatta has one chapter only on all kinds of vraṇa, called vraṇaśotha; visarpa and visphoṭa are dealt with in one chapter; three chapters are devoted to women's diseases, namely asṛgdara, yonivyāpad and strīroga.[13] The disease yonikanda, described for the first time in a separate chapter of the *Mādhavanidāna*, is mentioned in the chapter on yonivyāpad under the name of bhagaphala.[14]

Niścalakara, the author of a commentary on the *Cakradatta*, does not acknowledge a separate chapter on dāha, as the *Mādhavanidāna* and *Siddhayoga* have.[15]

The order of some chapters of the *Cakradatta* differs from that found in *Mādhavanidāna* and *Siddhayoga*. The chapter on bhagna is placed between those on śūkadoṣa and kuṣṭha, whereas the *Mādhavanidāna* and *Siddhayoga* put it between those on vraṇa and nāḍīvraṇa.[16]

The order of the kṣudrarogas disagrees with their arrangement in the *Mādhavanidā-*

na.

The chapters on treatment of the various diseases are followed by eleven chapters, concerned respectively with rasāyana, vṛṣya (= vājīkaraṇa), sneha, sveda, vamana, vinecana, anuvāsana, nirūha, nasya, dhūma, and kavala. The *Siddhayoga* has a similar series of chapters. The last three chapters of Cakrapāṇi's treatise are devoted to preparations used in the treatment of eye diseases (āścyotana, añjana, tarpaṇa, puṭapāka), bloodletting, and the preservation of health (svastha). Unlike the *Siddhayoga*, the *Cakradatta* has no chapters on ariṣṭas and on miscellaneous subjects. The work ends with two verses containing information on the author and his treatise.

The main source for the composition of the *Cikitsāsaṃgraha* was obviously Vṛnda's *Siddhayoga*, which strikes the eye when both works are compared. Indications in the text itself concerning its sources are small in number. Caraka and Suśruta are referred to on a number of occasions.[17] The latter part of the chapter on children's diseases consists of a reproduction of Rāvaṇa's *Kumāratantra*;[18] a large part of the chapter on rasāyana (34–125) is a paraphrase of Nāgārjuna's *Lohaśāstra*;[19] a nāgārjunayoga is found in the chapter on haemorrhoids (arśas 61–70); the śilājatuvidhāna, found in the same chapter (152–158), was borrowed from Caraka,[20] as indicated in the text itself;[21] the formula of śivaguṭikā (rasāyana 172–195), taught by Śiva to Gaṇapati, is said to be from the *Śaivasiddhānta*.[22]

Noteworthy among the authorities to whom recipes are ascribed are Agastya (kāsa 61–66),[23] the Aśvins,[24] a Bodhisattva (arśas 105–106),[25] Jīvaka (ślīpada 24–30),[26] Kaca (mūtrāghāta 10),[27] and Kṛṣṇātreya (karṇaroga 18–22).[28]

Numerous references to works and authors exploited by Cakrapāṇi in the composition of his *Saṃgraha* occur in the commentaries of Niścalakara and Śivadāsasena.

The former's *Ratnaprabhā* is a very rich mine of information on the subject.[29] It indicates as sources utilized by Cakrapāṇi: Agniveśa, Amitaprabha, *Amṛtamālā*, *Aśvavaidyaka*, *Aśvinīkumārasaṃhitā*, Ātreya, *Āyurvedasāra*, Bhadravarman, Bhāluki, Bhela, *Bhiṣagmuṣṭi*, Bhoja, Bindusāra, *Bṛhattantrapradīpa*, Cakṣuṣyeṇa, Candraṭa, Caraka, *Carakottaratantra*, *Cikitsākalikā*, *Cikitsātiśaya*, Dṛḍhabala, *Gandhaśāstra*, *Haramekhalā*, Hārīta, Jatūkarṇa, Kālapāda, Kharanāda, Kṛṣṇātreya, Kṣārapāṇi, *Lohaśāstra*, Mādhavakara, Nāgārjuna, Nalanṛpati's *Sūdaśāstra*, *Nāvanītaka*, Parāśara, Pṛthvīsiṃha, Puṣkalāvata, *Ratnamālā*, Ravigupta, Śālihotra, Śaunaka, *Siddhasāra*, *Siddhayoga*, *Śivasiddhānta*, *Sūdaśāstra*, Suśruta,[30] *Svalpavāgbhaṭa*, *tantrāntara*, Tīsaṭa, Ugrasena, Vāgbhaṭa, *Vṛddhasuśruta*, *Vṛddhavāgbhaṭa*, *Vṛddhavideha*, *Vyagradaridraśubhaṃkara*, *Yogapañcāśikā*, *Yogaśata*, and *Yogayukti*.

Some sources mentioned by Śivadāsasena are: Agniveśa (jvara 64), *Āyurvedasāra* (jvara 105), Bhela (jvara 182–183), Candrāṭa (vraṇaśotha 52; vṛṣya 15–24), Caraka (often), Hārīta (jvara 71; gulma 43–44), Kṛṣṇātreya (chardi 17–18), Suśruta (often), and Vāgbhaṭa (often).

Cakrapāṇi's relationship to Vṛnda is to some extent clarified by Niścala, who repeatedly records stanzas of Vṛnda changed by Cakrapāṇi,[31] verses added to those by Vṛnda, and formulae of the *Cikitsāsaṃgraha* which are absent from the *Siddhayoga*.[32] Many verses which Cakra simply took from the *Siddhayoga* are, however, not indicated by Niścala as deriving from this source.[33]

Śivadāsasena records a number of cases where Cakra disagrees with Vṛnda.[34]

Cakra's respect for Vṛnda is revealed by the imprecation at the end of the *Cikitsāsaṃgraha*: "The curse uttered by those who know the *Bhaṭṭatraya*[35] and the three Vedas may at once come down on the head of him who includes formulae, which are not written down in the *Siddhayoga*, in this treatise, or who removes a single one from it".

The success of Cakrapāṇi's *Saṃgraha*, which ousted Vṛnda's *Siddhayoga*, may be due to its inclusion of a rather large number of new formulae, containing inorganic substances such as mercury, sulphur, metals, and compounds of these. The verses with the formula of one of these medicines were composed by Cakrapāṇi himself, as indicated in the text.[36] Some prose passages from the *Suśrutasaṃhitā*, containing lists of plants and other medicinal substances belonging to a particular group (gaṇa), were versified by Cakrapāṇi, as attested by Niścala.[37] The commentaries of Niścalakara and Śivadāsasena on the *Cakradatta* contain additional information on verses composed by the author or deliberately changed.[38]

Special features[39]

Among the special features of Cakra's saṃgraha the medicines containing mercury or mercurial compounds should be noted first. These are chiefly found at: grahaṇī 85–90 (rasaparpaṭikā)[40] and 91–97 (tāmrayoga); arśas 177 (rasaguṭikā); agnimāndya 28–29 (pānīyabhaktaguṭikā); krimi 10 (= *Siddhayoga* 7.13); yakṣman 30–34 (rasendraguṭikā); pariṇāmaśūla 51–53 (rasamaṇḍūra); plīhayakṛt 41–47 (lokanātharasa); amlapitta 38–50 (kṣudhāvatī guṭikā); masūrikā 7.[41]

Medicines containing metals, especially iron, or their compounds, are found at:[42] arśas 161–168 (agnimukhalauha) and 169–176 (bhallātakalauha);[43] pāṇḍuroga 11–12 (navāyasaloha),[44] 13–19 (yogarāja), 34–35 (viḍaṅgādyalauha), 36–41 (tryūṣaṇādyamaṇḍūra),[45] 42–44 (punarnavāmaṇḍūra),[46] 45–48 (maṇḍūravajravaṭaka);[47] raktapitta 82–97 (khaṇḍakādyalauha);[48] yakṣman 28–29 (vindhyavāsiyoga); śūla 50–57 (dhātrīlauha); pariṇāmaśūla 13 (triphalālauha and -maṇḍūra),[49] 14 (pippalyādilauha),[50] 15 (pathyādilauha),[51] 16–19 (sāmudrādyacūrṇa),[52] 21–22 (saptāmṛtalauha), 25 (kolādimaṇḍūra),[53] 26–28 (bhīmavaṭakamaṇḍūra),[54] 29 (kṣīramaṇḍūra),[55] 30–31 (cavikādimaṇḍūra), 32 (maṇḍūra- and lauhaprayoga), 33–35 (śatāvarīmaṇḍūra),[56] 36–41 (tārāmandūraguḍa),[57] 42–45 (rāmamaṇḍūra), 46–50 (bṛhacchatāvarīmaṇḍūra), 51–53 (rasamaṇḍūra), 54 (triphalālauha),[58] 55–56 (lauhaguṭikā), 57–62 (dhātrīlauha),[59] 63–68 (lauhāmṛta); sthaulya 6–9 (viḍaṅgādyalauha) and 19–29 (lauharasāyana); kuṣṭha 152 (sindūrādyataila)[60] and 153–156 (mahāsindūrādyataila);[61] amlapitta 38–50 (kṣudhāvatī guṭikā); netraroga 125–129 (nāgārjunavarti);[62] yonivyāpad 30; rasāyana 129–135 (ṣaḍaṅgatāmrayoga) and 136–151 (saptāṅgatāmrayoga).

Alchemical processes are described: amlapitta 27–29 (abhraśuddhi), 30–32 (lauhaśuddhi), 33–34 (maṇḍūraśuddhi), 35 (rasaśuddhi), 36–37 (gandhakaśuddhi); rasāyana 34–50, 51–62 (lauhamāraṇavidhi), 63–64 (bhānupāka), 65–66 (sthālīpākavidhi), 67–75 (puṭapākavidhi), 76–91 (pākavidhi), 92–97 (abhrakavidhi), 98–122 (bhakṣaṇavidhi), 123–125.

A noteworthy name of a disease is ahiṇḍikā (bālaroga 7);[63] some recipes are given for its treatment (bālaroga 8–10).[64]

Cakrapāṇi added a fair number of single or compound medicines to those collected by Vṛnda.[65] Some of these are:[66] the fresh juice from the leaves of śephalī in fevers (jvara 214), aṅkoṭhavaṭaka in diarrhoea (atisāra 58–60), nāgārjunayoga (arśas 61–70) and vijayacūrṇa (arśas 71–77) in haemorrhoids, powdered lotus seeds (padmabījacūrṇa; kāsa 16) in cough due to pitta, vyāghrīharītakī (kāsa 67–70) in coughs, mayūrapucchādileha (hikkāśvāsa 17) in hiccup and shortness of breath, kalahaṃsa (arocaka 18–19) in anorexia, aśvatthavalkalapānīya (chardi 25) in vomiting, dhustūramūlasiddhapāyasa (unmāda 6) in insanity, śephālīkvātha (vātavyādhi 43) in gṛdhrasī, siṃhanādaguggulu (āmavāta 39–47) and rasonasurā (āmavāta 71–73) in āmavāta, rudrajaṭālepa (vṛddhi 20), rūpikālepa (vṛddhi 21), hastikarṇapalāśalepa (galagaṇḍa 2), karpāsamūlapūpikā in apacī (galagaṇḍa 27), bhūnāgacūrṇalepa (bhagandara 10) in anal fistulas, etc. Some more new prescriptions are: irimedādyataila (mukhagataroga 19–24), bakulādyataila (mukhagataroga 28–29), and citrakaharītakī (nāsāroga 31–33).[67]

Cakrapāṇi's chapter on strīroga, longer than the chapter on the same subject in Vṛnda's *Siddhayoga*, adds recipes suitable to making flabby breasts firm (strīroga 62–66), tightening the vagina (67), and promoting the husband's interest in his wife (68–69).

To be noticed too is the increased use of substances of animal origin and of prescriptions with a Tantric flavour.[68] Mantras are repeatedly employed. Cakrapāṇi describes two yantras, the ubhayatriṃśaka, already known to Vṛnda, and the ubhayapañcadaśaka (strīroga 25–27), both thought to assure a pregnant woman of an easy delivery.

Noteworthy vegetable substances mentioned in the *Cakradatta* are:[69] āhā (vātavyādhi 72),[70] ahīndra (rājayakṣman 7),[71] aindrī (galagaṇḍa 21),[72] amloṭa (jvara 223),[73] aruṇataṇḍulīyaka (masūrikā 23 and 24),[74] aśanamallikā (nāsāroga 28),[75] asitavetra (visarpa 21),[76] avākpuṣpī (arśas 129),[77] bṛhatpattra (amlapitta 31),[78] cakrāhvaya (kuṣṭha 32),[79] carmakārāluka (vṛṣya 25),[80] celaka (vātavyādhi 300),[81] cāmpeya (vātavyādhi 230),[82] cukrīkā (tṛṣṇā 22),[83] daṇḍotpala and daṇḍotpalā (arśas 169; galagaṇḍa 33; amlapitta 43),[84] devapuṣpī (vātavyādhi 268),[85] dvika (mukharoga, mukhagataroga 30),[86] ekaiṣikā (vraṇaśotha 8),[87] elaka or elakā (ślīpada 31),[88] gajacirbhiṭa (gulma 40),[89] gandhapattraka (vātavyādhi 300),[90] gaṅgāpālaṅka (arśas 177),[91] gaurā (vraṇaśotha 78),[92] godhāvatī (mūtrāghāta 11; ślīpada 15),[93] guḍapuṣpa (agnimāndya 89),[94] hastikarṇa or hastikarṇapalāśa (galagaṇḍa 2; rasāyana 19), also called karikarṇacchada (rasāyana 55),[95] indrāśana (kuṣṭha 64),[96] irima (mukharoga, mukhagataroga 25),[97] jalakarṇā (rājayakṣman 31),[98] jalakumbhīka (galagaṇḍa 6),[99] jiṅgikā (prameha 8),[100] jīrākhya (raktapitta 94),[101] jyotsnikā (arśas 6 and 113),[102] kālā (galagaṇḍa 43; vraṇaśotha 8 and 101; nāḍīvraṇa 5),[103] kālamāriṣa (amlapitta 39),[104] kālāvakaraka (amlapitta 43),[105] kalāyavidalī (vraṇaśotha 67),[106] kañcaṭa (atisāra 38; grahaṇī),[107] kaṅgunikā (nāḍīvraṇa 9),[108] kāntakrāmaka (vraṇaśotha 53),[109] kaṇṭākumbhāḍu (masūrikā 5),[110] kapotavaktraka (aśmarī 3 and 26),[111] karabhavāruṇī (vṛṣya 57),[112] karṇākhya (jvara 209),[113] karṇamoṭa (vraṇaśotha 40),[114] kaśikā (pariṇāmaśūla 63),[115] keśarāja (pariṇāmaśūla 51; amlapitta 39 and 43; bālaroga 15; rasāyana 55 and 66),[116] kaṭumbharā (vātavyādhi 230),[117] khadirī (mūtrāghāta 12),[118] khaṇḍakarṇa (amlapitta 27 and 43),[119] kolā (pariṇāmaśūla 25),[120] kṛṣṇavetra (kuṣṭha 61 and 154),[121] kūḍakarāṇi (viṣa 25),[122] kukkurameñcukā (strīroga 58),[123] kulikā (viṣa 6),[124]

kuṭhāra(ka) (vraṇaśotha 49, 90, 91),[125] lavalikā (mukharoga, mukhagataroga 30),[126] lomaśa (kuṣṭha 9),[127] maghī (masūrikā 5),[128] madhurī (vātavyādhi 254 and 268),[129] mahārāṣṭrī (vraṇaśotha 47),[130] nakhī (vātavyādhi 269),[131] naravṛkṣa (kṣudraroga 123),[132] nirdahanī (śūla 45),[133] palāśā (hṛdroga 28),[134] pamarā (vātavyādhi 269),[135] peṭī (bālaroga 32),[136] pratyaṅgirā (viṣa 2),[137] rudrajaṭā (mūtrāghāta 12; vṛddhi 20),[138] śāliñca (amlapitta 28 and 30; rasāyana 56),[139] śārada (prameha 2),[140] sikaṭī (masūrikā 5),[141] śītalī (aśmarī 37),[142] sphuṭaka (bālaroga 13),[143] srāviṇī (vātarakta 75),[144] śṛgālakaṇṭaka (masūrikā 8),[145] śṛgālakolī (vraṇaśotha 58),[146] śvetabalā (yonivyāpad 32),[147] śvetajayantī (kuṣṭha 74),[148] śvetavātyāla (pariṇāmaśūla 42; amlapitta 33),[149] taila (rājayakṣman 88),[150] tālamastaka (asṛgdara 23; vṛṣya 36 and 40),[151] tṛṇaka (kuṣṭha 24 and 132),[152] tvakpattra (vireka 3),[153] uṣṭrakaṇṭaka (masūrikā 7),[154] and vaśira (aśmarī 2–4).[155] An unidentified animal is the karaṭavī (vṛddhi 20).[156]

Musk (kastūrī) is a substance that begins to appear more frequently in Sanskrit literature since the Gupta age.[157] The *Cakradatta* prescribes kastūrī (vātavyādhi 230) and describes the characteristics of purified musk (mṛgottamā)[158] (vātavyādhi 293).[159]

Another fragrant substance of animal origin mentioned in the *Cakradatta* as pūti (vātavyādhi 289) and śālija (vātavyādhi 297) is civet.[160]

2 The *Dravyaguṇasaṃgraha*

The *Dravyaguṇasaṃgraha*[161] is concerned with the medicinal properties of solid and liquid articles of food. On this subject it represents the earliest special treatise that has been preserved.

Contents

This work,[162] based on treatises of predecessors,[163] consists of 592 verses,[164] divided into thirteen sections (varga):[165] (1) dhānyavarga; after verses on the tastes, vīrya and vipāka, Cakrapāṇi describes the properties of grain, pulse, sesamum, and related articles of diet; (2) māṃsādivarga, on the flesh of a long series of animals and the eggs of some of these; (3) śākavarga, on vegetables; (4) lavaṇādivarga, on types of salt and related substances, spices and condiments; (5) phalavarga, on fruits; (6) pānīyavarga, on various types of water and the watery juice from the coconut, young kramuka, and tāla; rules for the use of cold or warm water in diverse disorders, rules for the use of boiled water; (7) kṣīravarga, on milk and dairy produce; (8) tailavarga, on oils and some other fatty substances; (9) aikṣavādivarga, on products of the sugarcane and types of honey; (10) madyādivarga, on alcoholic drinks and other fermented liquids, on types of urine; (11) kṛtānnavarga, on prepared foods of a liquid and semi-liquid nature; (12) bhakṣyavarga, on prepared foods of a solid nature; (13) āhāravidhi, rules for serving and taking food, description of the digestive processes; anupānavidhi, rules for the use of anupānas, i.e., drinks to be taken during or after meals; guṇakarmāṇi, the effects of the qualities of foods and drinks on the human organism; svasthavṛtti, rules about the maintenance of health.

The chief sources of the *Dravyaguṇa* are the *Carakasaṃhitā* and *Suśrutasaṃhitā*.[166] Cakrapāṇi probably used other works as well and may have composed some stanzas himself.[167]

Special features[168]

Vīrya is said to be of two, vipāka of three types (dhānya 8–10).[169] The pulse, usually called āḍhakī, is described under the name of tuvarī (dhānya 30c).[170] Cakrapāṇi uses the term vātasādhāraṇa (māṃsādi 1.4) for a substance that neither excites nor pacifies vāta.[171] Noteworthy is a long series of fishes in the māṃsādivarga,[172] which indicates that Cakrapāṇi was a resident of Bengal, where much fish is consumed.[173] Vegetables are said to be of six types (śāka 1.2), namely leaves, flowers, fruits, stalks, tubers and mushrooms; this classification was later adopted by Bhāvamiśra. Some vegetables, well known in Bengal and described in Cakrapāṇi's *Dravyaguṇa* are bhūkanda (śāka 2.9),[174] grīṣmasundaraka (śāka 1.28),[175] hilamocī (śāka 1.12),[176] kaccī (śāka 2.12),[177] kañcaṭa (śāka 1.23),[178] māṇaka (śāka 2.10),[179] nāḍīca (śāka 1.29),[180] and the stalks of alābu (śāka 1.48) and kuṣmāṇḍa (śāka 1.43). Remarkable items among the fruits are anupākin (phalavarga 31)[181] and madhukukkuṭī (phalavarga 25).[182] A type of sugar not mentioned in earlier texts is tamarāja (aikṣavādivarga 12).[183]

3 The *Vyagradaridraśubhaṃkara*

The *Vyagradaridraśubhaṃkara*[184] is mentioned several times in Niścalakara's *Ratnaprabhā*; Gopāladāsa quotes it as the *Vyagradīnaśubhaṃkara* in his *Cikitsāmṛta*.[185]

Niścala refers to the work as *Śubha*,[186] *Śubhaṃkara*,[187] and *Vyagradaridraśubhaṃkara*.[188] Niścala's quotations and remarks show that it was a treatise in verse, arranged in chapters (prakaraṇa) dealing with a particular type of preparation.[189] The *Vyagradaridraśubhaṃkara* was written before the *Cikitsāsaṃgraha*, which contains verses borrowed from it.[190] Some other stanzas of the *Cakradatta*, composed by Cakrapāṇi, are adaptations of verses found in his earlier work.[191] The *Vyagradaridraśubhaṃkara* is probably referred to, without mentioning its name, in Niścala's remarks ad śotha 6.[192]

Quotations from Cakrapāṇidatta and his works

Cakra is quoted by Āḍhamalla, in Ambikādattaśāstrin's commentary on the *Rasendrasārasaṃgraha*, Āśubodha Senagupta's commentary on Govindasena's *Paribhāṣāpradīpa*, the *Āyurvedābdhisāra* (112), the comments on Govindasena's *Paribhāṣāpradīpa*, Gopāladāsa's *Cikitsāmṛta*, Nāganātha's *Nidānapradīpa*, Narasiṃha's commentary on the *Mādhavanidāna*, Niścalakara's *Ratnaprabhā* (very often), Nityanātha's *Rasaratnākara*,[193] Śivadāsasena's commentaries (on the Sūtrasthāna of the *Carakasaṃhitā*, Uttarasthāna of the *Aṣṭāṅgahṛdayasaṃhitā*, Cakrapāṇi's *Cikitsāsaṃgraha* and *Dravyaguṇa*),[194] Śivadatta's auto-commentary on his *Śivakoṣa*,[195] Śrīkaṇṭhadatta's part of the *Madhukośa*[196] and his *Kusumāvalī*,[197] Vācaspati's *Ātaṅkadarpaṇa*,[198] and Vijayarakṣita's part of the *Madhukośa*.[199]

Cakrapāṇi is cited in Āśubodha Senagupta's commentary on Govindasena's *Paribhāṣāpradīpa* and Niścalakara's *Ratnaprabhā*. He is sometimes called Cakradatta by Niścala. Gulrājśarmamiśra's *Viśikhānupraveśavijñāna* contains a quotation from

Cakrapāṇi that has been taken from the *Āyurvedadīpikā* (ad Ca.Si.9.50). Cakrapāṇidatta is quoted in the comments on Govindasena's *Paribhāṣāpradīpa*, Niścala's *Ratnaprabhā* and Sukhānanda's commentary on the *Vaidyajīvana* of Lolimbarāja.

Authors and works quoting from or referring to the *Cakradatta* are: Āḍhamalla, the *Amṛtasāgara*, Āśubodha Senagupta's commentary on Govindasena's *Paribhāṣāpradīpa*, the *Āyurvedābdhisāra* (179) and its commentary (ad 183), the *Āyurvedīya Khanijavijñāna*, *Bhāvaprakāśa*,[200] *Bheṣajasaṃhitā*, *Bṛhannighaṇṭuratnākara*, Devasiṃha Viṭṭhal's *Bṛhadāsavāriṣṭasaṃgraha*, the comments on Govindasena's *Paribhāṣāpradīpa*, Gulrājśarmamiśra's *Viśikhānupraveśavijñāna*, Hariprapanna's *Rasayogasāgara*, Jīvānandavidyāsāgara's commentary on the *Rasendrasārasaṃgraha*, the *Kāmaratna*, *Rasoddhāratantra*, *Ratnasāgara*, Priyavrat Śarmā's auto-commentary on the *Āyurvedadarśana*, Śivadāsasena's commentary on the Uttarasthāna of the *Aṣṭāṅgahṛdaya*,[201] Śivamiśra's *Vaidyaśāstraśivānubhava*, Trimalla's *Yogataraṅgiṇī*,[202] Vāsudeva's *Vāsudevānubhava*, Vinodalāla Sena's *Āyurvedavijñāna*, and the *Yogaratnākara*.[203] It is one of the sources of Āryadāsa Kumārasiṃha's *Kvāthamaṇimālā* and the *Rasendrasambhava*.

The *Cakradatta* is quoted as *Cakrasaṃgraha* in the commentaries of Niścalakara and Śivadāsasena on the work. Niścala calls it occasionally Cakra's *Svasaṃgraha* and *Yogasaṃgraha*. It is also quoted as *Saṃgraha* by Niścala and Śivadāsasena, who call its author Saṃgrahakāra or -kṛt. Hārāṇacandra (ad Su.Sū.46.294–297) quotes from it as *Cakrapāṇisaṃgraha*.[204]

Āśubodha and Nityabodha Senagupta's commentary on the *Rasaratnasamuccaya* quotes Cakra, Cakrapāṇi, the *Cakradatta*, *Cakrapāṇisaṃgraha* and *Cakrasaṃgraha*. Somadevaśarman's commentary on the *Āyurvedaprakāśa* refers to Cakrapāṇi's *Cikitsāsaṃgraha*.

The comments on Govindasena's *Paribhāṣāpradīpa* quote it as Cakradatta's *Svasaṃgraha* and the *Cakrapāṇikṛtasaṃgraha*. Āśubodha Senagupta's commentary on Govindasena's treatise quotes it as *Cakrasaṃgraha*.

The *Cakradatta* was one of the sources of the *Ma'din al-Shifā'*.

The *Dravyaguṇasaṃgraha* is quoted in Gopāla's *Dravyaguṇa* and may have been one of the sources of Ṭoḍara's *Āyurvedasaukhya*.

The author

Cakrapāṇi has provided us with information concerning himself at the beginning and end of his commentary on the *Carakasaṃhitā* and at the end of the *Cikitsāsaṃgraha*.

Cakrapāṇi was the son of Nārāyaṇa, who was the superintendent of the kitchen (rasavatyadhikārin) and a minister (pātra) of a king of Bengal (Gauḍa);[205] his elder brother, called Bhānu,[206] was a court physician (antaraṅga).[207] Cakrapāṇi belonged to the Lodhravalī branch[208] of the Datta lineage,[209] a branch that did not become extinct and is still represented among the inhabitants of Shillong in Meghālaya.[210]

Cakrapāṇi's teacher was Naradatta and his commentary on the *Carakasaṃhitā* was written in agreement with Naradatta's interpretation of this text.[211]

Śivadāsasena[212] adds to this information that Cakrapāṇi's father, Nārāyaṇa, was

a minister (mantrin) of king Nayapāla of Bengal (A.D. 1038–1055).[213] Some authors claim that Cakrapāṇi was born in the Vīrabhūma (Bīrbhūm) district of Bengal,[214] in a place called Mayūragrāma.[215]

The introductory verses of the *Āyurvedadīpikā* and *Cikitsāsaṃgraha*, which are identical and dedicated to the Trimūrti, as well as the first verse of the *Dravyaguṇa*, dedicated to Śiva, show that the author of these works was a Hindu by faith.[216]

Date

The fact that Cakrapāṇi's father, Nārāyaṇa, was in the service of king Nayapāla (1038–1055), establishes that Cakrapāṇi must have written his works in about the third quarter of the eleventh century.[217]

Commentaries

An elaborate commentary on Cakrapāṇidatta's *Cikitsāsaṃgraha* was written by Niścalakara. A later commentary by Śivadāsasena[218] is largely based on Niścalakara's work.

Niścalakara

Niścalakara is the author of the very valuable *Ratnaprabhā*.[219]

The author declares in the introductory verses that he gave to his work the title *Ratnaprabhā* because of its objective, namely to restore the brilliance of the *Cakrasaṃgraha* (i.e., the *Cikitsāsaṃgraha*), a gem the glow of which had dimmed on account of misunderstandings after the passing away of the āyurvedaguru Vijayarakṣita. He adds that he intends to attain his object by consulting various treatises and reflecting (gharṣaṇa) on the sayings of his teacher.

The *Ratnaprabhā* is a mine of information, abounding in critical considerations on the contents of the *Cakradatta* and quotations from numerous works, many of which are lost now.[220] Niścala does not limit himself to the clarification of Cakra's text, but expounds his own ideas too. This may be the reason that his commentary is called a tātparyaṭīkā.[221] He does not blindly adhere to the teachings of earlier authorities, not even to those of his guru, and records interpretations not accepted by the latter or is even slightly critical of him.

Cakrapāṇidatta is an admired authority, profusely quoted; laudatory epithets are applied to him: carakacaturānana, bahuśrutapariśrutasuśrutasahasranayana, sakalavaidya(kula)maulimālāmāṇikya, mārjitacaraṇanakhamaṇi;[222] he is referred to as prāmāṇikāgraṇī,[223] because of his refusal to acknowledge uncritically what is generally accepted (na prasiddhim ādriyate) and his habit of carefully examining whether or not a particular opinion has a rational basis (yukta, yuktisiddha).[224] Niścala censures colleagues who blindly follow customary interpretations,[225] Cakrapāṇidatta[226] and Vṛnda[227] not excepted. He assures us that he is not even convinced by opinions based on reasoning; practical results (vyavahārasiddha) should be regarded as the ultimate test of a given practice.[228]

Niścala's commentary gives evidence of the value he attached to establishing a correct text of the *Cakradatta*. He compared its readings with those of the sources and of other treatises,[229] recording variants[230] and errors.[231] Criteria applied in determining the appropriateness of a reading are its conformity with the text of other treatises,[232] its acceptance by earlier authorities,[233] and its value for practice.[234] Reaching a decision was sometimes fraught with difficulties or impossible. Consequently, Niścala acknowledges in such cases the validity of two or more divergent readings[235] or refrains from judgment.[236]

In general, Niścala tries to solve controversies he discovers when consulting a number of authorities, but, not always feeling able to achieve this aim, he tends to accept two or more conflicting views together with the arguments adduced in support of them.[237]

Niścala's experience as a practising physician emerges from remarks about formulations he prescribed to his patients and found to be effective.[238] Well-known and regularly used recipes are indicated as such.[239]

A singular feature of the *Ratnaprabhā* is the occurrence of the names of some of Niścala's patients. Persons who turned to him for help when suffering from some disorder were the paṇḍit Dhyānakīrti,[240] Lokeśvara, who was in charge of the Tantric rituals (mahātantrādhikṛta), the bhikṣu Śāntarakṣita,[241] and Yatapālita, who held an important position in the royal kitchen (bhojanavīryādhikṛta).[242]

The exact procedures in the preparation of compound medicines, the amounts of the ingredients, etc., are very often discussed in detail. The practices prevalent in Niścala's time and country are described as vyavahāra[243] or pracāra.[244] Actual practice did not always conform to the instructions of the authoritative textbooks.[245] Agreement with habitual practices is expressed in various ways,[246] as is disagreement.[247]

Traditional views are those attributed to the vṛddhāḥ[248] or vṛddhavaidyāḥ,[249] and their teachings, the vṛddhavaidyopadeśa[250] or vṛddhavaidyavyavahāra.[251] Niścala is prone to accept this tradition, although, occasionally, he rejects it.[252]

A number of subjects relevant to medical theory and practice are elaborately discussed; examples are some types of parīkṣā,[253] the general treatment of fever,[254] the treatment of irregular fevers,[255] weights and measures,[256] and technical terms.[257]

The identity of medicinal substances is a subject which is given much attention to. Niścala not only deals with those occurring in the text of the *Cakradatta*,[258] but also with those found in the treatises he quotes. Some noteworthy plant names of these sources are:[259] alavaṇā,[260] amogha,[261] arka,[262] bāṇā,[263] bhūnīlī,[264] devatākusuma,[265] guccha,[266] jalagaṇḍaja,[267] jāmātar,[268] kañcukī,[269] kandakarṇa,[270] kaṇṭī,[271] kāṣṭhapūga,[272] kulī,[273] kuliśa,[274] laguru,[275] modayantī,[276] mūlakaparṇī,[277] odanapākī,[278] pāśī,[279] phalī,[280] raṇḍākhyatāla,[281] ruhā,[282] vānīra,[283] vanya,[284] veṅaṇa,[285] vinayā,[286] viṣāṇa,[287] vṛkī.[288]

Local names of disorders, plants, dishes, etc., are repeatedly mentioned.[289]

Niścala's training was apparently not restricted to medicine. Several remarks in his commentary reveal his knowledge of other sciences, such as grammar[290] and metrics.[291]

The sources of numerous verses of Cakrapāṇidatta's *Cikitsāsaṃgraha* are carefully

recorded by Niścala.[292] This does not imply that the stanzas that remain unidentified derive from Cakrapāṇi himself, as a considerable number of them were borrowed from Vṛnda's *Siddhayoga* without any reference to this fact in the *Ratnaprabhā*.[293] A few verses taken from Suśruta are neither indicated as such.[294]

Authors and works quoted or referred to in the *Ratnaprabhā* are:[295] ācārya (sneha 21–22: = Dṛḍhabala), ācāryāḥ (jvara 17 and 21), Acyuta[296] (jvara 277–278; masūrikā 32; kṣudraroga 9), *Āgama* (udara 51; rasāyana 167–189; nirūha 14), *Agnipurāṇa*[297] (atīsāra 72), Agniveśa (jvara 17, 41–42, 64; apasmāra 7–8; vamana 14; nirūha 8–10),[298] *Akṣadevīya Karmamālā*[299] (rājayakṣman 9–12),[300] *Akṣadevīya Yogaśata(ka)* (hikkāśvāsa 9; plīhayakṛt 11; karṇaroga 7), *Alpavāgbhaṭa* (mukharoga 58ab, 58cd, 65; karṇaroga 57), Amara[301] (kuṣṭha 37), Amitaprabha[302] (jvara 65–68, 84, 90; krimi 4; pāṇḍuroga 9; tṛṣṇā 24; unmāda 50; udāvarta 14; udara 11; śotha 6; galagaṇḍa 6; vraṇaśotha 75; upadaṃśa 9; visarpa 32; mukharoga 87; vamana 16; vireka 16 and 28), Amitaprabha's *Carakanyāsa* (anuvāsana 33), Amitaprabha's *Cikitsātiśaya*[303] (arśas 147–151), *Amoghayogatantra*[304] (jvarātīsāra 1–2; unmāda 21–28), *Amṛtaghaṭa*[305] (jvara 2), *Amṛtamālā*[306] (krimi 12; tṛṣṇā 22; vātarakta 6, 10, 12, 13, 20, 25; udara 23; kuṣṭha 17 and 150),[307] *Amṛtavallī*[308] (arśas 18–22; hikkāśvāsa 1; pariṇāmaśūla 51–53 and 63–69; mūtrāghāta 13 and 15; śotha 52; vraṇaśotha 53 and 55; amlapitta 1 and 21; masūrikā 3, 9, 11; kṣudraroga 43, 50, 81–82; vṛṣya 9), Āṣāḍhavarman[309] (vamana 16; anuvāsana 33), *Aśvavaidyaka* (vātavyādhi 117–126),[310] *Aśvinīsaṃhitā* (kṣudraroga 66–71), *Atisvalpayogavyākhyā* of Mādhavakara[311] (jvara 247–252), Ātreya[312] (grahaṇī 16–19;[313] anuvāsana 33),[314] *Āyurvedaprakāśa*[315] (jvara 3), *Āyurvedasāra*[316] (jvara 82, 105, 127, 133, 142,[317] 161, 162–164, 170, 174, 175–177, 187, 277–278; atīsāra 23–25, 67, 76, 83–84; grahaṇī 9–11, 20–21, 39, 47–49; arśas 35–44, 83–92, 100–103; pāṇḍuroga 25; raktapitta 22–24, 39–42, 43, 66–73; rājayakṣman 3, 9–12, 13–15, 24–25, 35–39, 40–46, 61–63, 75; kāsa 29; hikkāśvāsa 2–5, 11–14, 24–29; chardi 21, 23, 24; apasmāra 11, 15, 23–28; vātavyādhi 16–17, 26, 36, 39–40, 42–43, 46, 47–49, 50, 52–55, 58, 59; āmavāta 15–18, 35–37, 72; śūla 3, 6, 7, 12, 25, 37, 44–45, 50–51; pariṇāmaśula 1, 4, 16–19, 26–28; gulma 34–39, 40, 46, 47, 57–59, 71–72; hṛdroga 25; mūtrakṛcchra 11, 13, 26; mūtrāghāta 3 and 4; aśmarī 1, 13–16, 32, 33, 47–49; prameha 11, 22–26, 47–49; udara 31–38; plīhayakṛt 3, 30–32, 33–40; śotha 8, 12, 17, 35, 41–43, 44–47; vṛddhi 4–5, 12, 17, 22, 23, 26; galagaṇḍa 1, 6, 14–15, 17, 18, 23, 28, 30, 40, 47, 51, 57; ślīpada 11, 12, 20–22; vidradhi 12 and 14; vraṇaśotha 49, 60, 75; nāḍīvraṇa 2 and 3; bhagandara 22; kuṣṭha 17, 46, 64, 67, 69, 70, 104–110, 111–115, 120–121, 134–135, 150, 156, 159; udarda 1, 2, 4, 5, 8, 13; amlapitta 1, 5, 6, 14, 54; visarpa 11 and 14; masūrikā 1, 39, 41, 42, 44; kṣudraroga 7, 10, 15, 18, 66–71, 81–82, 92, 96, 97, 122, 123, 124, 135–136; mukharoga 7, 9, 11, 14, 15, 16, 40, 53, 58cd, 63, 75–76, 91, 99–103, 107–108; karṇaroga 11–12, 17, 23–24, 28, 57; nāsāroga 21; vṛṣya 37; nirūha 22–25, 28–30, 31; nasya 11),[318] Bakula[319] (jvara 5, 28–29, 69, 117, 253–254; jvarātīsāra 26–27; atīsāra 77; grahaṇī 9–11, 16–19, 50–54; arśas 18–22, 33–34, 35–44, 51–62, 83–92, 100–103, 147–151, 159–164; agnimāndya 2, 11–12, 14–15, 30–39, 73–75, 78–79, 82, 86; krimi 5; pāṇḍuroga 4–6, 10, 27, 35–40; raktapitta 7, 39–42, 66–73, 82–96; rājayakṣman 13–15, 27, 40–46, 47–60, 87–90, 92–93, 94–95; kāsa 20 and 40–41; svarabheda

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24–30), *Naradattaśiṣyaṭippaṇī* (vraṇaśotha 88–89),[482] Naradeva[483] (kṣudraroga 92), *Nāvanīta* (raktapitta 79–81; kāsa 48–49; kuṣṭha 97–100),[484] *Nāvanītaka*[485] (arśas 120–126; vātavyādhi 180–184; kuṣṭha 104–110),[486] *Nāvanītakasaṃhitā* (nāsāroga 29–31), *Nāvanītatantra* (svarabheda 12), *Nighaṇṭu*[487] (grahaṇī 47–49; arśas 142–146; śotha 8),[488] Nimi (karṇaroga 32), *Nyāyaśāradī*[489] (gulma 57–59), paitāmahāḥ[490] (anuvāsana 33),[491] Pālakāpya[492] (jvara 3[493] and 65–68),[494] Pāṇini (śūla 12), Parāśara (atīsāra 101; rājayakṣman 67–71; nirūha 4–6 and 8–10), *Pātañjalalohaśāstra*[495] (arśas 180), Pauṣkalāvata (jvara 188), Piṅgala (śūla 12),[496] Pitṛjyeṣṭha (anuvāsana 33),[497] prābhākarāḥ[498] (raktapitta 82–96),[499] Pṛthvīsiṃha (vātavyādhi 227–271),[500] Puṣkalāvata (jvara 48 and 64), *Putrotsavāloka*[501] (rājayakṣman 27 and 30–34),[502] rāḍhīyāḥ[503] (jvara 253–254;[504] agnimāndya 9–10),[505] *Rāḍhīya*[506] (masūrikā 5),[507] Rakṣitaguru[508] (mukharoga 73–74), Rakṣita(pādāḥ)[509] (jvara 20 and 64; atīsāra 54–56; grahaṇī 4 and 13; arśas 100–103 and 133–141; krimi 5; pāṇḍuroga 35–40;[510] nāḍīvraṇa 5), Rāmadeva[511] (nāḍīvraṇa 16), Rāmapāladeva[512] (kuṣṭha 74–82), Rambharāma (vātavyādhi 227–271),[513] *Rasasāgara* (prameha 44),[514] Rasāyanavaidya[515] (atīsāra 21–22),[516] *Ratnamālā* (atīsāra 30; raktapitta 39–42; rājayakṣman 65–66),[517] *Ratnaparīkṣāśāstra*[518] (vātavyādhi 3–5), *Ratnasāra*[519] (arśas 180),[520] Ravi[521] (jvara 106, 115, 117, 119–121, 157–158, 161), Ravigupta (jvara 64, 69, 71, 82, 84, 87, 99, 100–102, 104, 124, 149, 150, 185–186; atīsāra 67; grahaṇī 9–11, 20–21, 47–49; krimi 4; pāṇḍuroga 9; raktapitta 22–24, 25, 35–37; rājayakṣman 1–2, 9–12, 22–23, 24–25, 27, 47–60, 75; kāsa 5–6, 37–38, 49, 59–64; hikkāśvāsa 1,[522] 6–8, 17; chardi 2–3, 6–11, 13, 19, 27; tṛṣṇā 10–11, 16, 17, 24; madātyaya 3–6 and 24; unmāda 1–2, 15–16, 29–30, 44–45; apasmāra 3–4; ūrustambha 1–2; āmavāta 35–37; udāvarta 31; gulma 57–59 and 92; mūtrakṛcchra 9 and 19; aśmarī 32; prameha 18, 19, 20, 21; udara 41 and 45; plīhayakṛt 6; śotha 20 and 22; vraṇaśotha 65–66; bhagandara 3 and 22; upadaṃśa 9; kuṣṭha 2, 35, 55, 64, 68, 92, 120–121, 156; visarpa 5 and 7; mukharoga 52 and 73–74; karṇaroga 15; nāsāroga 5 and 21; netraroga 15, 16, 22, 31; nasya 1), *Rugviniścaya*[523] (jvara 187; madātyaya 21–22; udara 55–56; plīhayakṛt 1; vṛddhi 22; vraṇaśotha 48; nāḍīvraṇa 1; bhagna 1; kṣudraroga 2), *Rūparatnākara*[524] (mukharoga 32–33), *Śabdārṇava*[525] (vātavyādhi 106–116 and 227–271; āmavāta 22; vraṇaśotha 76–80; nāḍīvraṇa 6), *Śaivasiddhānta*[526] (rasāyana 167–189),[527] *Śaivatantra*[528] (rasāyana 166),[529] *śālākya*[530] (nasya 8–10),[531] *Śālākyatantra*[532] (rājayakṣman 40–46),[533] Śālihotra (vātavyādhi 96–105;[534] āmavāta 7),[535] Śambhu[536] (kuṣṭha 52),[537] *Saṃgraha*[538] (grahaṇī 77–85; pāṇḍuroga 19–20; raktapitta 35–37; gulma 83–87; hṛdroga 25; prameha 18 and 22–26; vidradhi 8; nāḍīvraṇa 16; upadaṃśa 1–2; visarpa 14; kṣudraroga 1, 35–37, 66–71; mukharoga 20, 27, 32–33),[539] saṃgrahakārāḥ (jvara 291; kuṣṭha 131–133), Saṃgrahakṛt (jvara 284; śotha 48–51; ślīpada 7; kuṣṭha 134–135; kṣudraroga 96),[540] saṃgrahakṛtaḥ[541] (kṣudraroga 24–25 and 98; mukharoga 27), *Saṃgrahāntara* (udarda 3 and 15; amlapitta 1), saṃgrahavyākhyātāraḥ,[542] (vidradhi 8) *Śaṃkarabhāṣitalohakalpa*[543] (kuṣṭha 17),[544] *Saṃyogasvabhāva*[545] (jvara 244–246),[546] Sanātana[547] (agnimāndya 11–12 and 14–15; śūla 50–51; gulma 46), Sanātana's *Vallabhā* (arśas 147–151; agnimāndya 11–12), Sandhyākara[548] (rājayakṣman 40–46), *Sārāvalī*[549] (jvara 2), *Sāroccaya*[550] (arśas 147–151),[551] Śaunaka (jvara 64 and 65–68; arśas 159–164), *Siddhasāra*[552] (jvarātīsāra 1–2; atīsāra 98 and

102; arśas 4–7;[553] pāṇḍuroga 8, 25, 26, 30; rājayakṣman 47–60; hikkāśvāsa 6–8; madātyaya 10; apasmāra 3–4; vātavyādhi 140 and 175–179; udāvarta 6; gulma 31–32; udara 16 and 58; plīhayakṛt 8 and 9; vraṇaśotha 50, 85, 90; nāḍīvraṇa 1; upadaṃśa 1–2; visarpa 14, 19, 33; kṣudraroga 32 and 99; mukharoga 11 and 52; rasāyana 167–189; vamana 6; vireka 2, 10–15, 16; nasya 12), *Siddhayoga*[554] (jvara 3; jvarātīsāra 1–2; prameha 30–37; netraroga 18), Somadāsa's *Karmamālā*[555] (agnimāndya 11–12),[556] Śrīdharapātañjala(gaṇita)śāstra (jvara 65–68),[557] Śrīkaṇṭha (karṇaroga 30),[558] Śrīkaṇṭha's *Amṛtavallī*[559] (amlapitta 1), *Śubha*[560] (mukharoga 53), Śubhaṃkara[561] (vraṇaśotha 56–57; kṣudraroga 81–82), Sudāntasena (pāṇḍuroga 9; rājayakṣman 9–12; chardi 27; madātyaya 11–12; mukharoga 73–74; sneha 13–14), *Sūdaśāstra*[562] (jvara 31–32 and 44; rājayakṣman 13–15; madātyaya 15; āmavāta 61–65; vamana 14),[563] *Śukatantra*[564] (jvara 2),[565] Suśruta (passim), suśrutapāṭhānuvādinaḥ (kṣudraroga 1), Suvīra[566] (vraṇaśotha 99), *Svalpavāgbhaṭa* (pāṇḍuroga 35–40; prameha 30–37 and 47–49; śotha 48–51; kuṣṭha 131–133; mukharoga 41 and 71; karṇaroga 16 and 23–24), Svāmidāsa[567] (jvara 5), *Svarasāyana*[568] (āmavāta 29–34),[569] *Tantra* (karṇaroga 38), *tantrāntara* (jvara 5, 8–9, 34, 49, 64, 124, 150; arśas 18–22, 100–103, 153–158; agnimāndya 90–91; krimi 10; pāṇḍuroga 11; raktapitta 39–42 and 66–73; kāsa 59–64 and 65–68; chardi 1; unmāda 21–28; apasmāra 7–8; vātavyādhi 227–271; vātarakta 13; āmavāta 15–18 and 23–28; pariṇāmaśūla 21–22 and 75–76; gulma 71–72; udara 1, 16, 58; plīhayakṛt 26–29; śotha 8, 33–34, 48–51; vraṇaśotha 49, 76–80, 91–92; nāḍīvraṇa 16; kuṣṭha 57, 63, 74–82, 131–133, 134–135; amlapitta 23–24;[570] visarpa 2 and 33;[571] kṣudraroga 23, 35–37, 66–71, 96; mukharoga 8, 20, 51, 58cd; karṇaroga 41; nāsāroga 29–31; netraroga 6; rasāyana 160, 166, 190–195; vṛṣya 15–25[572] and 50–51;[573] sneha 13–14 and 21–22; vireka 28; anuvāsana 24–25; nirūha 13, 22–25,[574] 26–27, 28–30,[575] 31),[576] *Tantrapradīpa*[577] (pariṇāmaśūla 54; mukharoga 16 and 17), *Tattvakalikā*[578] (vraṇaśotha 46, 54, 56–57; vṛṣya 55),[579] ṭīkākāra (visarpa 2), ṭīkākārāḥ (bhagna 16–27), ṭīkākṛt (rājayakṣman 61–63), ṭīkākṛtaḥ (jvara 17; grahaṇī 72–76; raktapitta 34; hikkāśvāsa 19–20; tṛṣṇā 10–11), *Ṭippaṇī* (kuṣṭha 41),[580] Tīsaṭa[581] (jvara 3 and 19; vidradhi 15; visarpa 34; masūrikā 24), Trilocanadāsa (vātavyādhi 150–154),[582] udīcyāḥ[583] (anuvāsana 33),[584] Ugrasena[585] (nāḍīvraṇa 5),[586] *Ujjvalakoṣa*[587] (vātavyādhi 3–5), Umāpati[588] (āmavāta 29–34), *Uttarakārikā* (vamana 16; anuvāsana 33),[589] Vāgbhaṭa (passim), Vāgbhaṭa's *Svalpasaṃhitā*[590] (kāsa 30–31), *Vaidyakapradīpasaṃgraha* (jvara 3),[591] *Vaidyapradīpa*[592] (jvara 48; jvarātīsāra 1–2 and 16–25; atīsāra 30, 77 and 93–94; grahaṇī 5–6, 7, 29–36, 77–85; arśas 4–7 and 152; krimi 12; kāsa 30–31; hikkāśvāsa, intr.; tṛṣṇā 1 and 10–11; kuṣṭha 17; visarpa 41–42; kṣudraroga 104–106; mukharoga 113–117; karṇaroga 16 and 38; nāsāroga 1; netraroga 20; vṛṣya 50–51 and 56; anuvāsana 14–18), *Vaidya(pra)sāra* (rājayakṣman 40–46;[593] kuṣṭha 116–119),[594] *Vaidyaprasāraka*[595] (jvara 133, 247–252, 253–254, 256–257; atīsāra 64; grahaṇī 20–21; arśas 111–114; rājayakṣman 9–12; āmavāta 35–37; śūla 50–51; gulma 57–59; hṛdroga 26–29; prameha 44; vṛddhi 27–30; kuṣṭha 17, 74–82, 104–110, 116–119, 131–133, 144–147; kṣudraroga 60–62, 66–71, 72–75; mukharoga 11, 73–74, 113–117; karṇaroga 23–24; nāsāroga 2–3; vṛṣya 15–25; nirūha 26–27), vaiṣṇavāḥ (anuvāsana 33),[596] Vaitaraṇa (aśmarī 47–49; bhagna 16–27; kuṣṭha 63; mukharoga 46–47; nirūha 28–30), Vallabha (vṛṣya 38–44),[597] *Vallabhā*[598] (jvara

84; agnimāndya 12–13 and 14–15; krimi 4; pāṇḍuroga 9; raktapitta 66–73; gulma 47; prameha 17; vraṇaśotha 75), *Vaṅgadeśīya Gandhaśāstra*[599] (vātavyādhi 227–271),[600] Vaṅgasena (āmavāta 29–34), Vāpyacandra[601] (jvara 10–11; atīsāra 60; agnimāndya 77; mūrchā 11–12; gulma 91; sthaulya 29; udara 51; bhagandara 5; kuṣṭha 8–12), Varāhamihira (jvara 64 and 292),[602] Vararuci (raktapitta 82–96),[603] Vasiṣṭha (kāsa 59–64),[604] *Vedavākya* (raktapitta 82–96), Vibhākarapādāḥ[605] (arśas 165–171;[606] vātavyādhi 205–226; prameha 44), Videha (jvara 1, 20, 178–179, 277–278; jvarātīsāra 1–2; grahaṇī 20–21; kāsa 43; vātavyādhi 87 and 180–184; plīhayakṛt 19–23; kṣudraroga 7, 12, 15, 49, 58–59, 66–71, 81–82, 83, 84–95, 93, 96, 98, 112, 126–133; mukharoga 11, 25–26, 32–33, 43, 68, 69, 70, 89, 97–98; karṇaroga 8–9, 11–12, 13, 16, 23–24, 30, 33–34, 36, 43, 49; nāsāroga 2 and 7–8),[607] Vijayarakṣita (intr. verses), Vikramādityadeva[608] (arśas 83–92), *Vimāna* (jvara 18),[609] vīravarmāṇaḥ[610] (anuvāsana 33),[611] *Viṣṇupurāṇa* (vṛṣya 15–25), Viṣṇuvarman[612] (udara 51), Viśvāmitra (arśas 142–146; gulma 57–59; kṣudraroga 126–133), *Viśvasāra*[613] (galagaṇḍa 19),[614] *Viśvavallabhā*[615] (kuṣṭha 159), *Vṛddhakāśyapa*[616] (hikkāśvāsa 19–20; udara 31–38), *Vṛddhasaṃhitā* (jvara 292),[617] *Vṛddhasuśruta* (vātavyādhi 3–5; śūla 1 and 59–60; gulma 17; sneha 13–14), *Vṛddhavāgbhaṭa* (jvara 3, 211, 237–238, 272–274, 277–278, 288–290, 291; arśas 127–131; pāṇḍuroga 4–6, 11, 12–18; rājayakṣman 47–60; vātavyādhi 3–5, 13–15, 36, 70, 81–85, 95, 138–139, 140; vātarakta 14; gulma 9–10, 41–42, 50–56, 57–59; mūtrāghāta 3; aśmari 50–53; prameha 6–7, 15, 16, 18, 19, 20, 30–37, 47–49; udara 27–30 and 45; śotha 38–39 and 40–51; vṛddhi 23; vraṇaśotha 99; mukharoga 113–117), vṛddha(vaidya)(vyavahāra) (jvara 20; grahaṇī 72–76; arśas 14 and 83–92; pāṇḍuroga 11; raktapitta 7 and 15; kāsa 10–15 and 59–64; hikkāśvāsa 19–20, 24–29, 30–33; svarabheda 6; tṛṣṇā 23; apasmāra 23–28; vātavyādhi 27, 62–63, 74–75, 87, 106–116, 205–206, 227–271; ānavāta 29–34 and 35–37; śūla 50–51; pariṇāmaśūla 21–22, 26–28, 32–35, 75–76; gulma 47; hṛdroga 10; mūtrāghāta 15; aśmarī 37–38; prameha 44; udara 48; plīhayakṛt 2; vraṇaśotha 98; nāḍīvraṇa 8; kuṣṭha 46, 55, 74–82, 111–115, 116–119; udarda 2; kṣudraroga 92 and 121; karṇaroga 30; sneha 15–16; vireka 16; anuvāsana 5 and 24–25; nirūha 4–6, 20–21, 26–27, 31), *Vṛddhavideha*[618] (vātavyādhi 162–170), Vṛnda[619] (jvara 3, 64, 65–68, 116, 162–164, 178–179, 235; jvarātīsāra 26–27; atīsāra 54–56; grahaṇī 14–15 and 72–76; raktapitta 39–42; rājayakṣman 13–15 and 65–66; hikkāśvāsa 24–29 and 30–33; svarabheda 13; madātyaya 21–22; unmāda 7 and 31–33; vātavyādhi 3–5, 88–92, 1400; vātarakta 13, 21–23, 41; āmavāta 9 and 35–37; śūla 50–51; udāvarta 25; mūtrāghāta 1; aśmarī 13–16; prameha 16; sthaulya 5; udara 1, 48, 55–56; śotha 8 and 48–51; vṛddhi 22; ślīpada 24–30; vraṇaśotha 48, 59, 65–66, 68; nāḍīvraṇa 1, 3, 22; bhagandara 6, 13–17, 23; upadaṃśa 4, 5, 11, 13; bhagna 10, 11, 14–15, 16–27; kuṣṭha 2, 8–12, 24, 91, 111–115, 134–135, 150, 160–161; udarda 7; amlapitta 1, 12, 20, 23–24; visarpa 3–4; masūrikā 5, 7, 39; kṣudraroga 2, 10, 16, 20, 21–22, 23, 31, 35–37, 66–71, 81–82, 117–120; mukharoga 1. 9, 15, 32–33, 48, 52, 53, 54, 82, 96; karṇaroga 18–22, 23–24, 28, 30, 33–34, 38, 57, 59, 61; nāsāroga 17, 22, 28; netraroga 2, 14, 20; vṛṣya 15–25; sneha 2 and 8–10; vamana 9; anuvāsana 5, 24–25, 35; nirūha 22–25), Vṛndakuṇḍa[620] (jvara 20, 65–68, 199–200, 235; arśas 147–151; vātavyādhi 227–271), Vṛndakuṇḍa's *Siddhayoga* (jvara 3), *Vṛndasaṃgraha* (jvara 175–177; agnimāndya 5; unmāda 21–28;

udara 59–62; visarpa 30; netraroga 19), *Vṛndaṭippaṇī* (raktapitta 39–42; karṇaroga 30), Vyāḍi[621] (rājayakṣman 28–29), *Vyagradaridraśubhaṃkara*[622] (vraṇaśotha 46, 48, 55; bhagandara 10; upadaṃśa 10; bhagna 10 and 11; kuṣṭha 63), Vyāsa[623] (rājayakṣman 24–25),[624] *Yogamālā*,[625] *Yogamañjarī*[626] (jvara 2; netraroga 36), *Yogapañcāśikā*[627] (hikkāśvāsa 11–14),[628] *Yogaratnākara*[629] (jvara 2 and 32; grahaṇī 93–99; arśas 76–82 and 180;[630] prameha 44),[631] *Yogaratnasamuccaya*[632] (atīsāra 67;[633] kāsa 65–68),[634] *Yogaratnasārasamuccaya*[635] (jvara 237–238),[636] *Yogaśata*[637] (jvara 1, 141, 277–278; arśas 63–75 and 147–151; agnimāndya 11–12; hikkāśvāsa 9 and 15; chardi 27; vātarakta 6; śūla 50–51 and 54; gulma 40 and 46; mūtrakṛcchra 7 and 24; aśmarī 32; prameha 17; udara 50; kuṣṭha 20; mukharoga 73–74; netraroga 29), *Yogaśataṭīkā* (raktapitta 66–73),[638] Yogaśataṭīkākāra (gulma 46),[639] and *Yogayukti*[640] (jvara 170; grahaṇī 7; krimi 12; raktapitta 66–73; kāsa 65–68; hikkāśvāsa 24–29; madātyaya 17–19; ānavāta 8; ślīpada 16; vraṇaśotha 1–2; sveda 16–17).[641]

Sources mentioned in D.Ch. Bhattacharyya's article and not found in the edited text are: *Amṛtasāra*,[642] *Bhiṣagyukti*, *Dhanurveda*,[643] *Vaidyasāra*, *Loharasāyana*, *Nandanacanda*, and *Vikramaparākrama*.[644]

Niścala and his *Ratnaprabhā* are quoted by Āḍhamalla,[645] the glossator on the *Rasaratnākara*, Gopāladāsa in his *Cikitsāmṛta*,[646] Govindasena in the comments on his *Paribhāṣāpradīpa*, Jīvānandavidyāsāgara in his commentary on the *Rasendrasārasaṃgraha*, and Śivadāsasena in his commentaries on the *Cakradatta* and the Uttarasthāna of the *Aṣṭāṅgahṛdayasaṃhitā*.

The author mentions his name, Niścalakara, in the introductory verses of his commentary, which also acquaint us with the names of his parents, Lakṣmī and Sadānandakara. He obviously belonged to the Kara family of physicians, known as one of the lines of Bengali vaidyas from Bharatamallika's *Candraprabhā*. Evidence found in the *Ratnaprabhā* suggests that he belonged to the part of Bengal called Rāḍha or Rāḍhā.[647]

D.Ch. Bhattacharyya pointed to a detail in the formula of pānīyavaṭikā[648] that might also confirm Niścala's Bengal origin. The author of this prescription recommends, before taking these pills, the worship of Karuṇādhāra and Khasarpaṇa.[649] Khasarpaṇa, a manifestation of Lokanātha,[650] was revealed to an upāsaka called Śubhaṃkara in a village of the name Khasarpaṇa, situated in the Khāḍī maṇḍala of Bengal.[651]

Niścala is described as a court physician in charge of the women's departments (antaḥpuravaidya) and as a mahāmahopādhyāya in the colophon of the chapter on jvara. His position as a royal physician is confirmed by the functions held by some of his patients. The identity of the king who was his patron depends on his date.

The maṅgala of the *Ratnaprabhā* indicates that he was a Śaiva.

Niścala wrote another medical treatise before he began work on the *Ratnaprabhā*.[652]

Niścala's floruit depends on several disputed clues. One of these is the identity of his teacher. D.Ch. Bhattacharyya considered Vijayarakṣita to have been Niścala's guru. P.V. Sharma, being convinced that he cannot possibly have been Vijayarakṣita,

advanced the thesis that this teacher belonged to Vijayarakṣita's tradition, but lived about three quarters of a century later.

D.Ch. Bhattacharyya[653] assumed Niścalakara to have been a pupil of Vijayarakṣita on the basis of the introductory verses of the *Ratnaprabhā*, which state that Niścala started writing his commentary after the passing away of Vijayarakṣita; Niścala adds that the disappearance of Vijayarakṣita resulted in an improper interpretation (kubodha) of the *Cakradatta*, which deplorable state of affairs he intends to remedy by the composition of his commentary.[654]

P.V. Sharma claims that the reference to Vijayarakṣita as an āyurvedaguru does not necessarily imply that he was Niścala's instructor in āyurveda, but may indicate that Vijayarakṣita was honourably remembered as a medical authority. In this he may be right. He adds that it is unusual for Indian authors to mention the name of their teacher; this is, however, not a hard rule.[655] Niścala's statement that the light of the proper elucidation of the *Cakradatta* had become dull after Vijayarakṣita's death points, according to P.V. Sharma, to a long interval of time between Vijayarakṣita and Niścalakara. This long period was also necessary, in P.V. Sharma's eyes, for the *Cakradatta* to supersede the *Siddhayoga* in popularity to such a degree that a commentary was written on the former treatise.[656]

The first argument cannot be regarded as persuasive. The second argument disagrees with the first one, because Vijayarakṣita did comment, at least orally, on the *Cakradatta*, while his pupil Śrīkaṇṭhadatta wrote, somewhat later, his *Kusumāvalī* on the *Siddhayoga*. Moreover, P.V. Sharma himself surmises that Śrīkaṇṭhadatta also wrote a commentary on Cakra's *Cikitsāsaṃgraha*.[657]

The *Ratnaprabhā* quotes both Rakṣita and a guru, as well as a book written by the guru and this guru's tradition.

The quotations from Rakṣita, usually reverentially called Rakṣitapādāḥ, are partly very close to or identical with remarks found in Śrīkaṇṭhadatta's *Kusumāvalī* on the *Siddhayoga*; another part may derive from his comments on the *Cakradatta*. It cannot be excluded that his interpretations of verses common to *Siddhayoga* and *Cakradatta* are from his explanations concerning the latter work. However that may be, it can confidently be taken for granted that he was well acquainted with both *Siddhayoga* and *Cakradatta*.

An examination of the quotations from Niścala's guru, often respectfully called gurupādāḥ, confronts us with a remarkably similar situation. These citations are partly almost identical with passages of the *Kusumāvalī*;[658] another part are not found there, being concerned with verses of the *Cakradatta* that were not taken from the *Siddhayoga*.[659] The quotations from the guruparamparā and gurusampradāya are of a different character, being not found at all or not literally, in the *Kusumāvalī*.[660] Those from the *Gurugrantha*, in prose, are absent from the *Kusumāvalī*.

This body of data does not establish that Vijayarakṣita was Niścala's teacher, but suggests that there are no cogent reasons to claim that Niścalakara lived a long time after Vijayarakṣita. Niścala's intimate knowledge of Vijayarakṣita's interpretations of *Siddhayoga* and *Cakradatta*, probably not laid down in a complete commentary,[661] is rather indicative of a not too long interval between Vijayarakṣita's decease and Niścala's literary activity. The detailed acquaintance with Cakrapāṇi's sources, displayed by Niścala, corroborates this view, because this type of information must have been supplied to him by someone not far removed in time from the compilation of the *Cakradatta*, unless it was found in an earlier commentary.

Commentators on the *Cakradatta* who preceded Niścala are referred to in the *Ratnaprabhā*.[662]

A remarkable feature of the *Ratnaprabhā* is the absence of quotations from Śrīkaṇṭhadatta's *Kusumāvalī* on the *Siddhayoga*, a work with which Niścala must have been well acquainted, if he is later than this pupil of Vijayarakṣita. The Śrīkaṇṭha to whom Niścala refers appears to be a different author, in spite of P.V. Sharma's assertion to the contrary.[663] D.Ch. Bhattacharyya regarded Śrīkaṇṭhadatta as a contemporary of Niścala.[664]

P.V. Sharma's thesis that a long period of time separates Niścala from Cakrapāṇidatta is in his own opinion confirmed by Niścala's adverse criticism of Cakra's pupils (cakraśiṣyāḥ),[665] although this connection between criticism and the passage of time is not self-evident at all. Apart from this, I cannot endorse the claim that Niścala rejects the views advanced by these pupils, which are quoted from some unidentified work in verse. In addition, the citation adduced to prove Niścala's critical attitude[666] is the only one occurring in the *Ratnaprabhā* that lends itself to different interpretations; the context of the remaining two is neutral in tone.[667]

The date P.V. Sharma proposes for Niścala is A.D. 1275.[668] This late dating is connected with his chronological scheme for a number of authors quoted in the *Ratnaprabhā*; he assigns Vaṅgasena to A.D. 1200, Indu to A.D. 1225, and the Mādhava who wrote the *Dravyaguṇa* to A.D. 1250.

The single quotation from Vaṅgasena's *Saṃgraha*[669] has not been traced in this author's *Cikitsāsārasaṃgraha*.[670] The supposition that Niścala consulted a MS of Vaṅgasena's treatise that contained the formula cited does not imply that Niścala is later than A.D. 1200, since P.V. Sharma's date of Vaṅgasena was reached on insufficient grounds; Vaṅgasena was already known to Ḍalhaṇa, which pushes the former's date back to the twelfth century.[671] The quotations from Indu are unsuitable to chronological purposes, because Indu's date depends on that of Niścala.[672] The *Mādhavadravyaguṇa* is in my opinion earlier than P.V. Sharma supposes it to be.[673]

P.V. Sharma also claims that Niścala quotes Ḍalhaṇa anonymously and follows his views in the interpretations of drugs.[674] Unfortunately, P.V. Sharma refers, in order to prove his point, to parts of the *Ratnaprabhā* that have not been preserved,[675] which precludes verification of his claim. Moreover, anonymous quotations from Ḍalhaṇa's *Nibandhasaṃgraha* may be from one of Ḍalhaṇa's sources, such as the commentaries of Jejjaṭa, Gayadāsa and Cakrapāṇidatta.[676] However that may be, the hypothesis that Ḍalhaṇa was one of Niścala's sources does not conflict with an earlier date of Niścala than the one proposed by P.V. Sharma; Ḍalhaṇa lived in the latter half of the twelfth century, or even in its first half if P.V. Sharma is right in assigning him to about A.D. 1150.[677]

A problem is raised by P.V. Sharma's discovery that an anonymous quotation found in the *Ratnaprabhā* is identical with two verses of the Guṇasaṃgraha of the

Soḍhalanighaṇṭu,[678] a work usually placed about A.D. 1200.[679] This quotation may, however, be from one of Soḍhala's sources.

The dates of some other authors and works quoted in the *Ratnaprabhā* do not conflict with placing Niścala in the latter half of the twelfth century. The identification of Dharaṇīdhara as Dharaṇidāsa, the author of the *Anekārthasāra*, poses no problems, because Dharaṇidāsa lived in the early twelfth century.[680] The two quotations from the *Hārāvalī*, which are on the same subject, could not be traced in Puruṣottama's *Hārāvalī* by D.Ch. Bhattacharyya. Even their presence in Niścala's copy of the lexicon would not invalidate an earlier date of Niścala, since Puruṣottama lived in the first half of the twelfth century.[681]

A disputed piece of evidence concerning Niścala's date is his reference to king Rāmapāla of Bengal.[682] Niścala describes an audience given by this king to the king of Kāmarūpa. D.Ch. Bhattacharyya, the earliest author to draw attention to this passage,[683] was convinced that the vivid and flowery depiction of this event, in combination with the panegyric epithets applied to Rāmapāla, prove that this king was still alive when Niścala wrote his commentary, which would place the latter in the first quarter of the twelfth century.[684] P.V. Sharma[685] disagrees with D.Ch. Bhattacharyya; he argues that Rāmapāla's name would have appeared in the introductory verses of the *Ratnaprabhā*, if he had been Niścala's patron, as D.Ch. Bhattacharyya asserts. Moreover, Niścala is not mentioned as a member of Rāmapāla's medical staff; the name of the chief physician of the king was Bhadreśvara. P.V. Sharma suggests that the information concerning the meeting of Rāmapāla with the king of Kāmarūpa may have reached Niścala through the traditions centering round the impressive figure of Rāmapāla, who took great interest in the development of academic institutions and founded the Mahāvihāra of Jagaddala in North Bengal.[686] P.V. Sharma's argumentation does not carry conviction in my eyes, because the style of Niścala's account of the audience shows that it was still a lively memory to the one who reported about it. Niścala may well have met someone who was present on the occasion, if he lived in the second half of the twelfth century.

The Buddhist elements in the *Ratnaprabhā* have also been used as clues to Niścala's chronological position. These elements consist of: references to Buddhist texts, such as the *Amoghajñānatantra* and *Bodhicaryāvatāra*,[687] a Buddhist author like Dharmakīrti,[688] Buddhist deities like Khasarpaṇa, Lokanātha[689] and Tārā.[690] These references made D.Ch. Bhattacharyya[691] claim that Niścala undoubtedly flourished at a time when Buddhism was still reigning supreme in Bengal, and certainly before the Muslim armies destroyed the Buddhist universities of Bihār, which would place him in the last quarter of the twelfth century at the latest. P.V. Sharma rejects D.Ch. Bhattacharyya's arguments and emphasizes that Buddhist culture remained conspicuously present in Bengal until A.D. 1350. He says that, though Muḥammad Bakhtiyār (he probably means Ikhtiyār-ud-Dīn Muḥammad, son of Bakhtiyār Khaljī) destroyed Odantapurī Vihāra[692] in 1199 and Vikramaśīla Vihāra[693] in 1200, the Jagaddala Vihāra[694] in northern Bengal, where Buddhist monks took refuge, continued for another one hundred and fifty years. He adds that Bengal and Bihār enjoyed again uninterrupted peace during the rule of Ghiyās-ud-Dīn Khaljī, and that Muslim rule was not well established beyond Varendra till the foundation of the independent Bengal Sultanate under the house of Balban about one hundred years after the death of Ghiyās-ud-Dīn Khaljī.[695]

In my opinion, an accurate determination of Niścala's date cannot be reached by help of the references to Buddhism.

Almost all the evidence available does not conflict with placing Niścala in the second half of the twelfth century,[696] which would also explain that he does not refer to Ḍalhaṇa and Soḍhala by name. The single piece of evidence that might invalidate the proposed date is the anonymous quotation agreeing with some verses of the *Soḍhalanighaṇṭu*. Crucial in this respect is the unresolved question of Soḍhala's sources.

One of the MSS of the *Cakradatta* with Niścalakara's commentary (CBORI XVI, 1, Nr. 63) contains an interpolated portion of text and commentary, which covers netraroga 38–158, and the chapters on śiroroga, strīroga, bālaroga, viṣa, rasādiśodhanamāraṇa, śoṇitasrāva, and doṣavivaraṇa. The text of the chapters on śiroroga, strīroga, bālaroga and viṣa largely agrees with the text of the *Cakradatta*; the text of netraroga 38–158, rasādiśodhanamāraṇa and śoṇitasrāva has almost in toto been drawn from the *Śārṅgadharasaṃhitā*, while a smaller part has been taken from Vaṅgasena and the *Yogaratnākara*. The chapter on doṣavivaraṇa has been borrowed from the *Yogaratnākara*.

The text of the commentary on those parts which were taken from the *Śārṅgadharasaṃhitā* is based on Āḍhamalla's commentary on that treatise.

Sources quoted in the interpolated portion of the commentary are: Amitaprabhācārya, Bhāluki, Bheḍa, Bhoja, *Candratīyatantrāntara*, Caraka, *Carakottaratantra*, Dṛḍhabala, Jatūkarṇa, Jejjaṭa, Kāśyapa, Kṣārapāṇi, *Nāgārjunabhartṛtantra*, Nimi, Punarvasu, *Siddhasāra*, Suśruta, Suśrutādhyāyin, Vāgbhaṭa, Videha, *Vṛddhabhoja*, and *Vṛddhavāgbhaṭa*.[697]

Śivadāsasena

Śivadāsasena[698] says that he wrote his *Tattvacandrikā*[699] because the *Cakrasaṃgraha* had become obscured by the darkness of bad commentaries.[700] It is, as the author himself states in the introductory and concluding verses, an abridged version of Niścalakara's *Ratnaprabhā*, from which difficult passages are left out, while interpretations are added which differ from those by Niścalakara. Although Śivadāsa left out a large number of Niścala's references, numerous works and authors are still quoted in his work.

These authorities and works are: ādhunikāḥ (arśas 114), Aghorācārya (rasāyana 92–94),[701] Agniveśa (jvara 17–18 and 64; raktapitta 14; nirūha 8–10), *Agniveśasaṃhitā* (jvara 29), Amara (rasāyana 159–171), Amogha (rasāyana 79),[702] *Amṛtasāra* (arśas 169–176), *Amṛtavallī* (vṛṣya 9), Aruṇa(datta) (grahaṇī 32–34; tṛṣṇā 8; mūtrāghāta 3; sneha 10–11; svastha 4–5 and 26–29),[703] *Āyurveda* (kṣudraroga 84–85), *Āyurvedasāra* (jvara 82, 133, 161, 232; atisāra 21; grahaṇī 9–11; arśas 96–99; raktapitta 66–73; mūtrāghāta 3; plīhayakṛt 33–47; śotha 44–46; galagaṇḍa 39; nāḍīvraṇa 3; kuṣṭha 106–112 and 160), Bakula (jvara 117; śiroroga 51), Bhadra (jvara 55),[704] *Bhaiṣajyaratnāvalī*,[705] Bhāluki (jvara 157–158), *Bhānumatī* (vātavyādhi 59–64;

ānāha 10; vraṇaśotha 8–9; anuvāsana 5; nirūha 20–23; kavala 4), Bhaṭṭārahariścandra (jvara 49),[706] *Bhaṭṭatraya* (svastha 53), Bhavyadatta (arśas 27–28), Bhavyadattadeva (rasāyana 38–40), Bhela (jvara 55 and 182–183; vamana 14–15), Bhoja (atisāra 21–22; udāvarta 17; gulma 83–87; aśmarī 48–54; galagaṇḍa 31; nirūha 21), Bhojarāja (rasāyana 77–78), Bindusāra (jvara 201; raktapitta 25; viṣa 5–6), Brahmadatta (aśmarī 2–4),[707] Brahmadeva (śūkadoṣa 10),[708] *Bṛhaṭṭīkā* (svastha 53),[709] Cakra (often), *Cakrasaṃgraha* (plīhayakṛt 6; rasāyana 196–201; svastha 53), *Cakravyākhyā* (i.e., the *Āyurvedadīpikā*) (mukharoga, kaṇṭhagatarogacikitsā 19–20), Candrakalāṭīkākāra (atisāra 65),[710] Candrāṭa (jvara 71, 75, 178–179, 213, 282; jvarātisāra 18–20; grahaṇī 53–57; arśas 116–122; agnimāndya 2; pāṇḍuroga 32; raktapitta 17 and 29; arocaka 4; śūla 70 and 75–76; vidradhi 20; vraṇaśotha 52; upadaṃśa 10; kuṣṭha 29 and 136–137; kṣudraroga 66–71; mukharoga, mukhagatarogacikitsā 25–27; netraroga 144–145; bālaroga 25–26; viṣa 8; vṛṣya 15–24; nirūha 23–26 and 29–31),[711] Candrāṭa (in the *Vṛndaṭīkā*) (agnimāndya 87), *Candrikā* (arśas 138–142; galagaṇḍa 15 and 43; vraṇaśotha 8), Candrikākāra (jvara 42), Caraka (often), *Carakatattvapradīpikā* (by Śivadāsasena) (jvara 256; sneha 1 and 7; vamana 16 and 18), carakaṭīkākṛtaḥ (atisāra 23–24; raktapitta 27; unmāda 5), *Carakavyākhyā* (nirūha 36), Ḍallaṇa (jvara 103 and 210; atisāra 80; agnimāndya 87; pāṇḍuroga 28; raktapitta 36; chardi 2; tṛṣṇā 2, 3, 7, 10; śūla 75–76; udāvarta 16; ānāha 10; gulma 11; hṛdroga 5 and 12; mūtrāghāta 2 and 3; strīroga 6 and 7; viṣa 11–12),[712] *Deśarasāyanaṭīkā* (rasāyana 126),[713] *Dīpikā* (vranaśotha 32),[714] *Dravyaguṇa* (jvara 117), *Dravyāvalī* (kuṣṭha 160), Dṛḍhabala (jvara 149–150; arśas 129–137; yakṣman 65–66; sneha 6; anuvāsana 27, 33, 36, 41; nirūha 8–10, 11, 21), Gadādhara (rasāyana 172–193), gauḍāḥ (gulma 11), gauḍīyāḥ (vṛṣya 15–24), Gayadāsa (jvara 256; pāṇḍuroga 2; raktapitta 36; chardi 3; vātavyādhi 218–227; aśmarī 48–54; galagaṇḍa 25; netraroga 62), Gopurarakṣita (jvara 256), *Guṇapāṭha* (atisāra 10; chardi 19),[715] *Hārāvalī* (vṛṣya 26–36),[716] Hariścandra (jvara 4 and 23; agnimāndya 12; gulma 63–67),[717] Hārīta (jvara 5, 34, 49, 71, 118, 178–179, 218, 261; jvarātisāra 18–20; atisāra 58–60; agnimāndya 78; pāṇḍuroga 1 and 52; yakṣman 22–25; śūla 13–16; gulma 43–44; asṛgdara 2 and 8–11; rasāyana 152, 154–156, 160, 165–166, 196–201; vṛṣya 1; nirūha 27), Jatūkarṇa (jvara 4, 48, 124, 178–179, 198–199, 256; atisāra 61 and 77; grahaṇī 4 and 45–47; arśas 114; kāsa 12; apasmāra 31–32; vātavyādhi 190–194; vātarakta 42; prameha 28–29; kṣudraroga 127; karṇaroga 18–22; netraroga 15; rasāyana 196–201), Jejjaṭa (jvara 29, 42, 255; agnimāndya 30–38 and 74; raktapitta 17; yakṣman 47–60; tṛṣṇā 8; vātavyādhi 10 and 94; ānāha 10; mūtrāghāta 16; netraroga 59), Jīvanākhya (rasāyana 81),[718] *kāmaśāstra* (vṛṣya 61), *Kārikā* (svastha 53), Kārttika (pāṇḍuroga 28; arocaka 2; tṛṣṇā 11; gulma 94; mūtrāghāta 3 and 4; bhagna 15–16), Kārttikakuṇḍa (mūtrāghāta 16), Kharanāda (jvara 49 and 261), Kṛṣṇātreya (jvara 64 and 256; yakṣman 40–46; chardi 17–18; unmāda 31–33; nasya 25–26), Kṣārapāṇi (jvara 205–207; raktapitta 74–78; yakṣman 65–66; kāsa 13; hikkāśvāsa 19–20; gulma 98), *lauhaśāstra* (rasāyana 38–40 and 62), *Lohapradīpa* (pāṇḍu 9; rasāyana 67–72),[719] Mādhava('s *Nidānasaṃgraha*) (jvarātisāra 1), Mādhavakara (gulma 17),[720] Mādhavakara('s *Dravyaguṇa*) (jvara 31; agnimāndya 5), *Madhyavāgbhaṭa* (karṇaroga 48),[721] *Mahābhārata* (jvara 239), Maheśvara (unmāda 6 and 29–30),[722] *Maheśvarapattrikā* (āmavāta 1; sthaulya 17), *Medinīkārakośa*

(netraroga 188),[723] Nāgārjuna (agnimāndya 14; chardi 19; śūla 70; rasāyana 34, 76, 123–125, 126),[724] *Nāmamañjarī* (rasāyana 54),[725] *Nidāna* (galagaṇḍa 55), Nighaṇṭakāra (jvara 286),[726] *Nighaṇṭu* (arśas 161–168; śotha 10), Niścala[727] (jvara 70, 103, 145; atisāra 40; arśas 18 and 113; agnimāndya 87 and 91; krimi 5; pāṇḍuroga 28; raktapitta 15; tṛṣṇā 22; madātyaya 13; dāha 7; vātavyādhi 71 and 156; ūrustambha 12; āmavāta 26; śūla 12–16; pariṇāmaśūla 14 and 15; gulma 11, 43–44, 74–75; prameha 20; udara 42–43; plīhayakṛt 6; śotha 35–36; vraṇaśotha 50; bhagandara 13–20; amlapitta 17 and 38–50; mukharoga, mukhagatarogacikitsā 2 and 15–16;[728] karṇaroga 56; nāsāroga 1 and 2–3; netraroga 22, 87–89, 138–140, 212; śiroroga 2, 25, 49; strīroga 5; bālaroga 22 and 29–30; vṛṣya 11–13 and 26–36; sneha 21), Pālakāpya (svastha 21–24), *Parameśvararakṣitādisaṃgraha* (rasāyana 196–201),[729] Parāśara (atisāra 102), *Pātañjala* (rasāyana 45–47, 55–56, 76, 81, 122), Patañjali (rasāyana 52–53, 55–56, 61, 63–64, 67–72, 83–84, 107),[730] *Prayogaratnākara* (jvara 31),[731] Puṣkalāvata (jvara 49), *rasaśāstra*,[732] *Rasataraṅgiṇī*,[733] *Rasendrasārasaṃgraha*,[734] *Ratnakośa* (aśmarī 37–38; plīhayakṛt 1),[735] *Ratnaprabhā*[736] (jvara 1; nāsāroga 9–10; rasāyana 172–193), Ravigupta (jvara 71; krimi 4),[737] *Rāvaṇoktakumāratantra* (bālaroga 89),[738] *Rugviniścaya* (vṛddhi 23; visarpa 42), *Śabdārṇava* (vātavyādhi 256–277),[739] *Śaivatantra* (rasāyana 172–193), *śālākya* (netraroga 12;[740] dhūmapāna 6–7), Śālihotra (jvara 168–170), *Saṃgraha* (visarpa 30),[741] Saṃgrahakāra (gulma 46; hṛdroga 26),[742] saṃgrahakārāḥ (raktapitta 27; yakṣman 22–25), Saṃgrahakṛt (yonivyāpad 37–44),[743] saṃgrahakṛtaḥ (strīroga 21–24), *Siddhasāra* (jvarātisāra 1 and 4; asṛgdara 8–11; bālaroga 81–82; nasya 12–13),[744] *Siddhayoga*[745] (svastha 53), Śrīkaṇṭha (jvara 258; tṛṣṇā 18; śūla 64–65; kuṣṭha 106–112; udarda 10; masūrikā 45–47; kṣudraroga 97; karṇaroga 55; netraroga 62, 110–112, 203; strīroga 13; bālaroga 29–30, Śrīkaṇṭhadatta (vātavyādhi 20–22; udāvarta 17),[746] Sudānta (rasāyana 1), Sudāntasena (pāṇḍuroga 9), *sūdaśāstra* (yakṣman 6–7; madātyaya 15; śiroroga 50; vamana 16), Suśruta (often), *suśrutaṭīkā* (visarpa 5), *śuśrutaṭīkāḥ* (bhagna 17–29), suśrutaṭīkākṛtaḥ (agnimāndya 88; krimi 5; ; tṛṣṇā 8; mūtrāghāta 5; galagaṇḍa 39), *Svalpavāgbhaṭa* (karṇaroga 11–13), *Tantrapradīpa* (rasāyana 172–193), *Tantraṭīkā* (svastha 53),[747] Vaitaraṇa (vraṇaśotha 10), Videha (plīhayakṛt 19–23; karṇaroga 8–9 and 16; netraroga 3, 16, 151–155; śiroroga 35), Vindhyavāsin (kuṣṭha 17), Viśvāmitra (arśas 138–142 and 143–147; gulma 57–59; mūtrāghāta 3), *Vṛddhakāśyapa* (hikkāśvāsa 19–20), *Vṛddhasuśruta* (arśas 107–110; vātavyādhi 88–92), *Vṛddhavāgbhaṭa* (jvara 277; pāṇḍuroga 5 and 36–41; vātavyādhi 228–233; vātarakta 14; gulma 41–42; prameha 16; udara 29–32; vraṇaśotha 23), Vṛnda[748] (jvara 29, 103, 162–164, 202, 205–207; jvarātisāra 10–11 and 26–27; grahaṇī 19 and 40; arśas 143–146; krimi 12–14; raktapitta 39–42; yakṣman 65–66; hikkāśvāsa 24–29 and 30–33; vātavyādhi 71, 88–92, 95–99; vātarakta 13 and 23–25; āmavāta 21–23; aśmarī 10 and 13–16; prameha 31–38; plīhayakṛt 6; śotha 10, 11, 47–50, 51–54; ślīpada 24–30; nāḍīvraṇa 3; kuṣṭha 152 and 158; amlapitta 17; visarpa 42; mukharoga, dantamūlarogacikitsā 23–24; netraroga 114; strīroga 25–27; viṣa 1; vṛṣya 15–24; anuvāsana 5; nirūha 23–26; svastha 53), *Vṛndasaṃgraha* (udara 61–64), *Vṛndaṭippaṇī* or *-ṭippaṇikā* (raktapitta 27 and 36; yakṣman 10 and 27; kāsa 5–7; arocaka 2; chardi 12; dāha 7; ūrustambha 12; āmavāta 26; udara 48; vraṇaśotha 43 and 44),[749] *Yogaratnākara* (grahaṇī 91–97; rasāyana 35, 38–40, 63–64, 67–72, 83–84,

89–90, 92–94, 107, 129–135), and *Yogaratnākarasamuccaya* (rasāyana 62–72 and 96–97).[750]

Some[751] assert that Śivadāsa quotes the *Nāvanīta*.

The following among the above-mentioned sources are not referred to or quoted by Niścala: Aghorācārya, Aruṇa(datta), Brahmadatta, Brahmadeva, *Candraṭīkā*, Ḍallaṇa, *Guṇapāṭha*, *Lohapradīpa*, Maheśvara, Medinī, *Parameśvararakṣitādisaṃgraha*, Patañjali, *Prayogaratnākara*, *Rasataraṅgiṇī*, *Rasendrasārasaṃgraha*, *Ratnakośa*, and *Rāvaṇoktakumāratantra*.

The absence of some of these can easily be explained by the chronological gap between Niścala and Śivadāsasena; Aruṇadatta, Ḍalhaṇa and Medinī are later than the former. The reasons Niścala may have had for not quoting Brahmadeva remain obscure.

Śivadāsa's commentary abounds in interesting observations.[752] Variant readings are frequently referred to. In general, this author pays much attention to the establishment of a correct text, by consulting manuscripts,[753] pointing to wrong readings,[754] verses to be rejected, etc.[755] An important authority for the text of the *Aṣṭāṅgahṛdaya* was Aruṇadatta; Niścala was consulted for the text of the *Cakradatta*. Śivadāsa is more than once critical of Vṛnda[756] and sometimes disagrees with Niścala.[757]

Accurateness in the methods of preparing compound medicines is one of his concerns, as is the identity of medicinal substances.

Śivadāsa and the Tattvacandrikākāra, the *Tattvacandrikā* and the *Śivadāsavyākhyā* are quoted in Āśubodha and Nityabodha Senagupta's commentary on the *Rasaratnasamuccaya*. Śivadāsa and his *Cakraṭīkā* are quoted in Āśubodha Senagupta's commentary on Govindasena's *Paribhāṣāpradīpa*. A ṭīkā on the *Cakradatta*, probably Śivadāsasena's *Tattvacandrikā*, is quoted in Gulrājśarmamiśra's *Viśikhānupraveśavijñāna* and Jīvānandavidyāsāgara's commentary on the *Rasendrasārasaṃgraha*.

Śivadāsasena's commentary on Cakrapāṇi's *Dravyaguṇasaṃgraha*[758] has no title.

The following authorities and works are quoted or referred to: *Agniveśatantra* (pānīya 31), Aruṇa (śāka 1.7; pānīya 31), asmadguru (pānīya 37), *Bhānumatī* (phala 13), Bhaṭṭārahariścandra (phala 1 and 7), Bhoja (phala 30; kṣīra 13; aikṣava 17; āhāravidhi 22), Brahmadeva (māṃsādi 2.36; śāka 1.14), Cakra (dhānya 1.40; māṃsādi 1.2 and 6; śāka 1.3, 42, 46; śāka 2.27; lavaṇādi 6, 15, 17, 20; phala 1, 5, 7, 9, 36; pānīya 25 and 29; aikṣavādi 17; kṛtānna 8), *Candrikā* (phala 10, 11, 13, 29, 36; pānīya 29; kṣīra 6 and 20), Candrikākāra (phala 1 and 6; aikṣavādi 3 and 9; kṛtānna 38), Caraka (often), *Carakatattvadīpikā* (pānīya 37; kṛtānna 9), Dalvaṇa, Ḍalvana or Ḍallana (māṃsādi 1. 18; śāka 1.42 and 44; śāka 2.27; lavaṇādi 7, 14, 17; pānīya 23; aikṣavādi 9 and 12; madyādi 1; kṛtānna 54; bhakṣya 4; āhāravidhi 10),[759] Dhanvantari (dhānya 8), Gayadāsa (dhānya 27–28, 32, 39; māṃsādi 1.22; pānīya 30), Hārīta (māṃsādi 2.34; pānīya 3; kṣīra 46; āhāravidhi 21), Jatūkarṇa (dhānya 10; māṃsādi 2.34; pānīya 2 and 37), Jejjaḍa (pānīya 25; kṣīra 37; madyādi 5; kṛtānna 38), Mādhava (dhānya 10; śāka 1.39; kṛtānna 8), Mādhavakara (māṃsādi 2.16), Nala (kṛtānna 48), *Nibandhasaṃgraha* (śāka 1.8, 42, 46; śāka 2.20; lavaṇādi 6),[760] Parāśara (māṃsādi 2.34), Puruṣottama (phala 15), *Siddhānta* (dhānya 10), Suśruta (often), *tantrāntara* (dhānya 10 and 11), Trivikrama

(māṃsādi 1.18; śāka 1.44), Vāgbhaṭa (often), Vāpyacandra (māṃsādi 1.6): Viśvāmitra (dhānya 11; pānīya 22; āhāravidhi 22), *Vṛddhavāgbhaṭa* (śāka 1.3; pānīya 33). G.P. Sharma and P.V. Sharma[761] add to this list: *Haramekhalā*, Kāśirāja, Svāmidāsa, and *Yogaratnasamuccaya*.

Śivadāsa's commentary on the *Dravyaguṇa* is quoted in Priyavrat Śarmā's autocommentary on his *Dravyaguṇasūtra*.

Śivadāsena's contributions to the theory of dravyaguṇa, as contained in this commentary, have been studied by G.P. Sharma and P.V. Sharma.[762] Important is the view[763] that vīrya predominates over rasa and vipāka over vīrya, in contrast to the opinion of Caraka, who arranges these concepts, in relation to their increasing strength, in the order rasa-vipāka-vīrya.[764] In this respect Śivadāsasena follows an earlier authority, quoted anonymously. He also disagrees with the definition of rasa, as given by Cakra, and adheres to the way his father had characterized it.[765] Suśruta's opinion that taste belongs to water as a mahābhūta and that the six tastes become manifest through mere contact (saṃsarga) with the other bhūtas,[766] is rejected and replaced by the theory that the tastes are produced through a more specific process of changes (viśiṣṭā pariṇatiḥ) in mixtures of the bhūtas.[767] An earlier authority is quoted again in support of this. Vīrya is considered to be connected with the essential part (sārabhāga) of the mahābhūtas.[768] Śivadāsa holds that vipāka comes about by means of a renewed contact with the abdominal fire, after completion of the process of avasthāpāka or prapāka.[769] He regards the amlavipāka as described by Caraka as included in Suśruta's concept of uṣṇavīrya.[770]

Śivadāsasena's descriptions of foodstuffs and drugs, as found in his commentaries on Cakrapāṇi's *Cikitsā* and *Dravyaguṇa*, are valuable in various respects. Sometimes he tries to harmonize apparently conflicting views found in earlier works,[771] sometimes he takes sides.[772]

Morphological characteristics of medicinal plants, their local names and their habitat are often recorded. In many instances Śivadāsasena seems to agree with interpretations offered by Cakrapāṇi or Ḍalhaṇa while, on the other hand, he was not averse to consulting nighaṇṭus.[773]

Part 7

Authors and works from A.D. 600–1500

Chapter 1
Authors and works from the period A.D. 600–1000

The *Aṣṭāṅganighaṇṭu*

Contents

The*Aṣṭāṅganighaṇṭu*,[1] a treatise in 408 verses, is, as its name implies, related to Vāgbhaṭa's works. It belongs to Vāhaṭācārya's *Aṣṭāṅgahṛdayasaṃhitā* according to the colophon of one of its MSS,[2] though its introductory verse states that it is concerned with the drugs mentioned in the *Aṣṭāṅgasaṃgraha*. Actually, the first part of the work (verses 2–201) describes groups of drugs found in both treatises by Vāgbhaṭa, as is also indicated in one verse of the *Aṣṭāṅganighaṇṭu* itself,[3] for it is based on the twenty-five groups of chapter fifteen of the Sūtrasthāna of the *Aṣṭāṅgahṛdaya* and chapter sixteen of the same section of the *Aṣṭāṅgasaṃgraha*,[4] to which one group has been added, making a total of twenty-six. This extra group, the pippalyādigaṇa,[5] inserted as number three of the series, is also found in the *Aṣṭāṅgasaṃgraha*, but at the end, in prose, and worded quite differently.[6] The vīrataräḍigaṇa (103–112), on the other hand, has been taken from the *Aṣṭāṅgahṛdaya*, not from the *Aṣṭāṅgasaṃgraha*, where the names of the drugs composing it are different.

The *Aṣṭāṅganighaṇṭu*, after quoting one of Vāgbhaṭa's gaṇas, proceeds with a string of synonyms of each of the drugs composing the group. A significant feature is that the author coined new synonyms for each of these drugs, in order to arrive at a clear characterization.[7] In a few cases a member of a gaṇa has been suppressed.[8]

This first section of the work is followed by a second, heterogeneous one, called viprakīrṇa, about various medicinal plants, vegetables and fruits (203–286), inorganic substances (287–311ab), poisons (311cd–312), aquatic plants (313–317ab), flowers (317cd–322), liquids, dairy produce, products of the sugarcane, and oils (323–328ab), fermented drinks (328cd–332ab), cow's urine and cow dung (332cd), cereals, pulse and sesamum (333–340), technical terms denoting groups of drugs, such as triphalā, etc. (341–342), names for 'drug' (343ab), animals (343cd–372), the dhātus and doṣas (373–378ab), various terms (378cd–379), the earth, sun, planets and some related terms (380–391ab), deities (391cd–400), terms relating to plants (401–404), and terms relating to medicine in general (405–406). The treatise ends with two verses dedicated to Dhanvantari and the Aśvins.

The *Aṣṭāṅganighaṇṭu* is quoted in Priyavrat Śarmā's auto-commentary on the *Dravyaguṇasūtra*.

The *Aṣṭāṅganighaṇṭu* may be compared for its structure and contents with the *Abhidhānamañjarī* and *Paryāyaratnamālā*.

Special feature
The *Aṣṭāṅganighaṇṭu* is the first work to mention the medicinal plant called kumārī (278).[9]

The author
The *Aṣṭāṅganighaṇṭu* is an anonymous work.[10]

Date
As the *Aṣṭāṅganighaṇṭu* is based on Vāgbhaṭa's works, it cannot be earlier than the seventh century, which is corroborated by the presence of verses taken from the *Amarakoṣa*.[11] The earliest author to quote from the *Aṣṭāṅganighaṇṭu*, without naming his source, is, according to P.V. Sharma, Indu in his commentary on the *Aṣṭāṅgahṛdayasaṃhitā*,[12] which would, if correct, establish that the work was in existence in the latter half of the twelfth century.[13] Aruṇadatta once quotes an ardhaśloka from the *Aṣṭāṅganighaṇṭu*[14] and often gives synonyms to be found in it,[15] which indicates that it was composed before the middle or latter half of the twelfth century.[16] In P.V. Sharma's opinion, Vopadeva (second half thirteenth century) was certainly acquainted with several quotations from it which were current in āyurvedic circles in his time, as appears from his *Hṛdayadīpakanighaṇṭu*, while it was also used by Madanapāla for the composition of his nighaṇṭu, completed in A.D. 1375, and by Hemacandra for his *Nighaṇṭuśeṣa* (twelfth century). Finally, P.V. Sharma brings forward that Jejjaṭa appears to have been acquainted with the *Aṣṭāṅganighaṇṭu*;[17] the corroboration of this assertion would considerably push back the date of the work.

As the material adduced by P.V. Sharma in support of his assertions consists merely of series of synonyms which resemble those found in the *Aṣṭāṅganighaṇṭu* without being identical with them, it is impossible to regard his claims as proved.

Specific developments in the field of materia medica concerning the identity of medicinal plants and their synonyms were put to use by P.V. Sharma as a second type of evidence with a view to determine the date of the *Aṣṭāṅganighaṇṭu*. Though a fruitful approach in itself, the conclusions derived from it remain highly controversial.[18]

The third type of evidence adduced by P.V. Sharma consists of some words in the *Aṣṭāṅganighaṇṭu* which may be indicative of its date. These words are harayoni (290) as a synonym of rasendra, i.e., mercury, pārvatībīja (290) as a synonym of abhraka, i.e., mica, both pointing at a rather developed state of rasaśāstra, and pūti (299), i.e., civet, which is also found in the *Paryāyaratnamālā* (794) and the *Siddhayoga* (22.79). For the above reasons and in view of the fact that certain drugs introduced in the tenth century or later, such as akarakarā, ahiphena, mastagī and rūmī, as well as pārasīyayavānī, which occurs for the first time in the *Siddhayoga*, are absent from the *Aṣṭāṅganighaṇṭu*,[19] P.V. Sharma concludes that the work was written before the ninth century.[20] In support of this date he finally tries to demonstrate that Mādhava's *Paryāyaratnamālā*, assigned by him to the ninth century, represents a more developed state of knowledge than the *Aṣṭāṅganighaṇṭu*.[21] All this evidence, taken together, establishes, in P.V. Sharma's view, that the *Aṣṭāṅganighaṇṭu* was probably composed in the eighth century.[22]

This conclusion is too specific to be endorsed. The facts are in favour of placing the *Aṣṭāṅganighaṇṭu* in about the same period as Vṛnda's *Siddhayoga* and the *Paryāyaratnamālā* (about A.D. 800–1000).

The *Aśvinīkumārasaṃhitā*

The *Aśvinīkumārasaṃhitā* or *Aśvinīsaṃhitā*,[23] also called *Āśvineyasaṃhitā*,[24] has partly been preserved.[25]

The *Aśvinīkumārasaṃhitā* is quoted in Candraṭa's *Yogaratnasamuccaya*, Gopāladāsa's *Cikitsāmṛta*, Trimalla's *Yogataraṅgiṇī*,[26] and in the *Yogaratnākara*.[27] Cakrapāṇidatta borrowed from it according to Niścala.[28] The *Aśvinīkumāramata* is referred to by Kāśīrāma in his commentary on the *Śārṅgadharasaṃhitā*;[29] the *Aśvinīmata* is one of the sources of Basava's *Śivatattvaratnākara* and the *Bheṣajakalpasārasaṃgraha*. The *Aśvinīsaṃhitā* is quoted in the *Bhesajjamañjūsāsannaya*, by Niścala[30] and by Bhāvamiśra.[31] The *Āśvineya* is quoted in Anantakumāra's *Yogaratnasamuccaya*,[32] Dattarāma's *Bṛhadrasarājasundara*,[33] Trimalla's *Bṛhadyogataraṅgiṇī*,[34] and the *Vaidyacintāmaṇi*;[35] it is referred to in the *Ratnākarauṣadhayogagrantha* and Revaṇasiddha's *Vīrabhaṭṭīya*. An *Āśvinasaṃhitā* is quoted in Anantakumāra's *Yogaratnasamuccaya*,[36] by Bhāvamiśra,[37] Candraṭa,[38] Soḍhala, and Śrīdāsapaṇḍita.[39] Recipes from the *Āśvinasaṃhitā* occur in Gaṇeśaśarman's *Pākapradīpa*,[40] Soḍhala's *Gadanigraha*,[41] the *Vaidyacintāmaṇi*,[42] Vaṅgasena's *Cikitsāsārasaṃgraha*,[43] and the *Yogaratnākara*.[44] An *Āśvina* was one of the sources of the *Basavarājīya*, *Jvaracikitsita*,[45] and *Jvarasamuccaya*,[46] an *Aśvinīya* of the *Basavarājīya*, an *Āśvinīya* of Anantakumāra's *Yogaratnasamuccaya*,[47] an *Aśvina-* and *Aśvinīyasaṃhitā* of Candraṭa's *Yogaratnasamuccaya*. Formulae from an *Aśvinīkalpa* occur in the *Basavarājīya* and Vallabhendra's *Vaidyacintāmaṇi*. The *Kumārasaṃhitā*, quoted in Anantakumāra's *Yogaratnasamuccaya*, appears to be the same as the *Aśvinīkumārasaṃhitā*.[48] A *Kumārasaṃhitā*, probably also identical with the *Aśvinīkumārasaṃhitā*, is quoted in the *Bhesajjamañjūsāsannaya*. A work by the Aśvins is mentioned as a source by Harṣakīrti.

A *Saṃnipātakalikā*,[49] *Saṃnipātalakṣaṇa*,[50] *Saṃnipātaprakaraṇa*,[51] or *Saṃnipātārṇava*,[52] a *Trayodaśasaṃnipātanidānacikitsā*,[53] and a *Dhāturatnamālā*,[54] as well as a *Harītakīkalpa*,[55] are said to form part of the *Aśvinīkumārasaṃhitā*.

The *Saṃnipātakalikā* was one of the sources of Kalyāṇa's *Bālatantra*[56] and is quoted by Meghamuni in his *Meghavinoda*.[57] An unspecified *Saṃnipātakalikā* is quoted in Karandīkar's *Nidānadīpikā*.[58] The *Harītakīkalpa* from the *Āśvinasaṃhitā* is quoted in Anantakumāra's *Yogaratnasamuccaya*.[59]

A commentary on the *Saṃnipātārṇava*, entitled *Saṃnipātapadacandrikā*, may have been written by Māṇikya, son of Padmanābha.[60] Hemanidhana or Hemanidhāna,[61] a Jain monk of the Kharataragaccha, who probably lived in Bikaner, wrote a commentary on the *Saṃnipātakalikā* in A.D. 1676/77.[62] A Hindī commentary (stabaka) by Rāmavijaya Upādhyāya, also a Jain monk of the Kharataragaccha, dates from 1774/75.[63]

An *Aśvinīnighaṇṭu* is quoted in the *Basavarājīya*.[64] A *Nāḍīnidāna*, *-nirṇaya* or *-parīkṣā*,[65] as well as a *Yogasāra*,[66] are ascribed to the Aśvins. Several formulae are attributed to them.[67]

The *Brahmavaivartapurāṇa* credits the Aśvins with a *Cikitsāsāratantra*.[68] The Ti-

betan tradition credits them with two treatises, called *Gces-bsdus*[69] and *Byaṅ-khog khrims-kyi luṅ-ḥod ḥphro-ba.*[70]

Candranandana

Candranandana was the author of (1) the *Madanādinighaṇṭu*, (2) a commentary, called *Padārthacandrikā*, on the *Aṣṭāṅgahṛdayasaṃhitā*,[71] and (3) a collection of glosses (*vṛtti*) on the latter work.[72]

The Madanādinighaṇṭu

The *Madanādinighaṇṭu*,[73] also called *Gaṇanighaṇṭu*,[74] and sometimes *Oṣadhinighaṇṭu*,[75] enumerates both names and properties of medicinal substances.[76] The treatise can be divided into two main parts. The first one, consisting of 592 verses, is arranged in thirty-two sections (gaṇa), in agreement with the number of groups of drugs (gaṇa) in Vāgbhaṭa's *Aṣṭāṅgahṛdayasaṃhitā* (Sū.15).[77] The second part (viprakīrṇadravyaprakaraṇa; about 440 verses) deals with miscellaneous drugs, not mentioned in the preceding sections, and some other subjects.[78] It is mainly devoted to medicinal plants, but also deals with inorganic substances, fermented fluids, grain and pulse, prepared dishes, animals, terms designating parts of plants, groups of drugs, and anatomical terms. The plan of the work therefore resembles that of other nighaṇṭus, also based on the *Aṣṭāṅgahṛdayasaṃhitā*, such as the *Aṣṭāṅganighaṇṭu* and the *Abhidhānamañjarī*. Candranandana follows Vāgbhaṭa in his order of the drugs, but adds strings of synonyms, properties, and actions.[79]

The *Madanādinighaṇṭu* was translated into Tibetan under the title *Sman-dpyad yan-lag brgyad-paḥi sñiṅ-poḥi ḥgrel-pa-las sman-gyi miṅ-gi rnam-graṅs*, i.e., *Vaidyakāṣṭāṅgahṛdayavṛtter bheṣajanāmasūcī*,[80] and forms part of the Tanjur.

The *Madanādinighaṇṭu* is quoted by Bhānuji Dīkṣita[81] and Kṣīrasvāmin[82] in their commentaries on the *Amarakoṣa*, Śivadatta in his auto-commentary on the *Śivakoṣa*,[83] and Śrīvallabhagaṇi in his commentary on the *Nighaṇṭuśeṣa*.[84] Some quotations from a nighaṇṭu in Indu's *Śaśilekhā* agree with verses from the *Madanādinighaṇṭu*.[85]

A *Gaṇanighaṇṭu* is quoted in the *Śāligrāmanighaṇṭubhūṣaṇa* of the *Bṛhannighaṇṭuratnākara*.[86]

Special features

Candranandana distinguishes rather frequently more than one type of a drug mentioned as a single entity by Vāgbhaṭa; sometimes he adds items to a group. Examples are: the sthalaja and jalaja varieties of madhuka (1.3); nimba and mahānimba (1.7–8); a second type of viśālā (1.12–13); two varieties of vidula (1.26–27);[87] dantī is added to dahana (1.31); two types of elā (1.63–64); hareṇu is added to elā (1.66–67); sarṣapa and raktasarṣapā (1.68–69); two types of kumbha (= trivṛt; 2.1–2); two types of lodhra (2.19–20); three types of śigru (4.19–21); madhūla is added to madhūka (4.23–24); three types of dūrvā (6.1–3); dhanvayāṣa is added to anantā (6.5–6); śvetakāmbojī[88] is added to śvetapākī (6.16–17); two types of vidārī (8.1–2), of pañcāṅgula (8.4–5), of vṛścīva = varṣābhū (8.11–12), and of gopasutā (= śārivā; 8.18–19); lāmajjaka is added to uśīra

(9.1–4); three types of śiśira (= candana; 9.5–7); two types of bāṇa (15.14), darbha (17.7), and tuttha (18.3); kuṭheraka is added to kālamāla (22.7–8).[89] A few items, added by Candranandana, are absent from the *Aṣṭāṅgahṛdayasaṃhitā*, for example lāmajjaka (9.3). Some names differ slightly from those employed by Vāgbhaṭa.[90]

The section on miscellaneous drugs contains some items which are not found in the *Aṣṭāṅgahṛdayasaṃhitā*, such as ādārikā (p.22), damanaka (p.26),[91] dadhipuṣpī (p.23),[92] graiṣmī (p.28), kaṇṭakarañja (p.22), śirīṣikā (p.21), vanakārpāsī (p.21), vārṣikī (p.28), and vāsantī (p.27).

The author

One of the problems connected with Candranandana is whether one or two authors of this name should be distinguished, one who wrote the *Padārthacandrikā*, and another one who composed the *Madanādinighaṇṭu*.[93]

P.V. Sharma adduced two arguments in favour of this distinction.[94] First, the maṅgala of the *Padārthacandrikā* is addressed to Viṣṇu, that of the *Madanādinighaṇṭu* to Sarvajña, who is probably the Buddha. This may indeed point to two different authors, but can also be explained by assuming a syncretistic attitude to religion on the part of Candranandana. The second argument is based on a discrepancy in Candranandana's genealogy. The edited Sanskrit text of the *Padārthacandrikā* mentions Kalyāṇa and Vidyā as his parents, whereas Ravinandana or Ratinandana is the name of Candranandana's father in the Tibetan version of this commentary. This argument does not carry conviction, since it appears improbable that Kalyāṇa and Vidyā are the actual names of Candranandana's parents.

The issue whether one or two Candranandanas contributed to the medical literature can be elucidated by comparing the synonyms of medicinal plants, found in the *Madanādinighaṇṭu*, with those mentioned in the *Padārthacandrikā*. It so happens that the synonyms occurring in the latter work are for the greater part one of the first of the strings of names of the former, which suggests that both works are by one and the same author. The Tibetan tradition also regards the commentator and the author of the nighaṇṭu as identical.[95]

Candranandana mentions his name at the beginning of the *Padārthacandrikā* and *Madanādinighaṇṭu*.[96] His father was Ravinandana, as indicated at the beginning of the *Madanādinighaṇṭu* and in the Tibetan version of the *Padārthacandrikā*.[97] His grandfather was called Mahānandana.[98] The *Padārthacandrikā* was written at the instance of Śakunadeva.[99] Candranandana was, according to the Tibetan tradition, a native of Kaśmīr.[100]

Date

An important clue to Candranandana's chronological position is the Tibetan translation of the *Padārthacandrikā*, made by Rin-chen bzaṅ-po between A.D. 1013 and 1055.[101] A more precise dating would be reached if Candranandana were identical with Candradeva, mentioned in the biography of the Elder G-yu thog-pa,[102] the chief physician of the Tibetan king Khri-sroṅ lde-bćan, who lived in the eighth century. This G-yu thog-pa visited Candradeva on his way to India and received instruction from him. The same

biography relates that G-yu thog-pa met Vairocana, who claimed to have received the *Rgyud-bźi* from Candradeva.[103] The identity of this Candradeva with Candranandana, considered as not impossible by R.E. Emmerick,[104] would place our author in the middle of the eighth century. The same date was suggested by G. Huth.[105] The quotations from Candranandana's works are not helpful in establishing his date, since they are found in authors who are later than Rin-chen bzaṅ-po.

Candraṭa

Candraṭa,[106] the son of Tīsaṭa, who wrote the *Cikitsākalikā*, composed the following works: (1) a commentary on the *Cikitsākalikā*, (2) *Suśrutapāṭhaśuddhi*, (3) *Yogaratnasamuccaya*, (4) *Yogamuṣṭi*, (5) *Dravyāvalī*, and (6) *Vaidyatriṃśattīkā*.

(1) Candraṭa's authorship of the commentary on the *Cikitsākalikā*[107] is evident from the opening sentences of the work. It is written in a lucid style and is important for the constitution of the text of the *Cikitsākalikā* and its interpretation. At some places Candraṭa informs us of sources not referred to by Tīsaṭa himself.[108]

Many basic āyurvedic concepts are discussed at length in the comments on verse sixteen of the *Cikitsākalikā*.[109] Some new ideas are put forward in this part of the commentary. Candraṭa distinguishes three types of bala (strength): bala (in its restricted sense as physical strength), ojas, and tejas. Sattva is said to be of two types: bhīrutva and sahiṣṇutva. The concept of sātmya is elaborately dealt with according to the views of various authorities. Candraṭa himself is of the opinion that sātmya is of eight types. Regarding the concept of vipāka, he agrees with Suśruta in distinguishing two types. Drugs (auṣadha) are classified according to the predominance of one or more of the mahābhūtas in them.

The concept of diseases caused by one's karman is elucidated by a long quotation from a work not mentioned by name.[110] Differences of opinion between the followers of Caraka (kāyacikitsakāḥ) and Suśruta (śalyatantrakartāraḥ) are noticed.[111] Details on the preparation of various medicines are frequently given,[112] as well as the names of compound formulae.[113] The interpretations of the names of drugs are mostly correct,[114] but sometimes doubtful or wrong,[115] probably because the identity of a number of medicinal substances had become controversial, or because of insufficient knowledge. Occasionally, a medicinal plant is described and its vernacular name mentioned.[116] The term piccaṭa(roga) is employed as a synonym for the eye disease or group of eye diseases usually called pilla.[117] Añjanas, to be employed in eye diseases, are divided into three types: guṭikā, rasa and cūrṇa; guṭikā is subdivided into piṇḍa, varti and guṭikā in a restricted sense.[118]

Authorities quoted or referred to by Candraṭa are: Agniveśa (1; 2), Āstīka (mentioned by Tīsaṭa; 387), the Aśvins (1, 227, 306: mentioned by Tīsaṭa), Ātreya (1; 5), Aupadhenava (1; 145), Aurabhra (1; 2; 145), Bhaṭṭa[119] (introductory part of the commentary), Bhela (2: mentioned by Tīsaṭa; 20; 80; 82; 248: mentioned by Tīsaṭa), Bhoja (2: mentioned by Tīsaṭa; 85; 115), Bhṛgu (2: mentioned by Tīsaṭa), Bhṛguja[120] (375: mentioned by Tīsaṭa), Cakṣuṣyeṇa (2; 16; 80; 81; 85; 283; 303–304; 354–355), Caraka (passim), Dhanvantari (1: mentioned by Tīsaṭa), dhānvantarīyāḥ (2), Haricandra[121] (maṅgala), Hārīta (2: mentioned by Tīsaṭa; 82; 115; 116; 140–142; 173–174; 212–215), Janakātmaja[122] (347: mentioned by Tīsaṭa), Jatūkarṇa (2), Jejjaṭa (maṅgala; 161–162; 191–192; 221–222), Kāṅkāyana (147 and 151: mentioned by Tīsaṭa), Kapilabala (283), Kharanāda (16; 82; 283), Kṛṣṇātreya (85), Kṣārapāṇi (2; 16; 190; 208–211; 270), Nimi (2), nyāyavidaḥ (16), Parāśara (2: mentioned by Tīsaṭa; 82; 298–302: mentioned by Tīsaṭa), Pauṣkalāvata (1), Puṣkalāvata (2; 145), *Rasavaiśeṣika* (16),[123] *Siddhasāra* (81),[124] Sudhīra (maṅgala), Śukra[125] (383), Suśruta (passim), vaiśeṣikāḥ (16), Tīsaṭa (19; 82; 83–84; 110; 111; 193; 208–211; 212–215; 354–355), Vaitaraṇa (2), vaiyākaraṇāḥ (16), Varuṇa (383),[126] Videha[127] (2; 102; 104; 229–231: mentioned by Tīsaṭa; 304: mentioned by Tīsaṭa; 327; 328; 343; 346–347: Janakātmaja in Tīsaṭa's text), Viśvāmitra (361–364), *Vṛddhabhoja* (325), and *Vṛddhavideha* (85).

Noteworthy is the absence of Vāgbhaṭa,[128] although he is quoted in Candraṭa's *Yogaratnasamuccaya*.

Candraṭa's commentary on the *Cikitsākalikā* is quoted in Priyavrat Śarmā's autocommentary on the *Āyurvedadarśana* and Ṭoḍara's *Āyurvedasaukhya*.

(2) The *Suśrutapāṭhaśuddhi*,[129] a MS of which was described by J. Taylor,[130] consists of a revision of the *Suśrutasaṃhitā*, made by Candraṭa after the commentary of Jejjaṭa, as he indicates himself.[131] The text frequently differs from the printed edition of the *Suśrutasaṃhitā* according to Taylor, whereas A.F.R. Hoernle[132] notes that it does occasionally, though not very materially, differ from its traditional recension; elsewhere,[133] however, the latter remarks that Candraṭa's revised text deserves a searching examination because it contains additional and spurious verses recorded as such by Ḍalhaṇa. Hoernle's suggestion[134] of a connection between Candraṭa and Kārttikakuṇḍa rests on very slender evidence and needs corroboration. P.V. Sharma, being of the opinion that the text of the *Suśrutasaṃhitā* as we have it contains changes and additions by the hand of Candraṭa,[135] tried to identify some of the alterations.[136] However, the description of the India Office MS of the *Suśrutapāṭhaśuddhi* is in contradiction with such a view.

Candraṭa refers to his *Suśrutapāṭhaśuddhi* and *Yogaratnasamuccaya* at the end of his commentary on the *Cikitsākalikā*, which proves that the commentary is the latest of the three.

A *Pāṭhaśuddhi* and *Mahāpāṭhaśuddhi*, quoted extensively by Anantakumāra,[137] cannot but designate Candraṭa's work. A *Pāṭhaśuddhi* is cited in the *Bhesajjamañjūsāsannaya*.

The quotations from the *Pāṭhaśuddhi* in Anantakumāra's *Yogaratnasamuccaya* sometimes agree, sometimes disagree with the current text of the *Suśrutasaṃhitā*.[138]

Candraṭa is referred to and extolled in Bālācārya's *Suśrutasāra*, which may mean that the author of this work was acquainted with the *Pāṭhaśuddhi*.

(3) The *Yogaratnasamuccaya*,[139] written by Candraṭa, son of Tīsaṭa, according to its first two verses,[140] is a collection of prescriptions,[141] arranged in eight sections (adhikāra):[142] ghṛta,[143] taila, cūrṇa, guṭikā, avaleha, gadaśānti,[144] (pañca)karman, and kalpa.[145]

The kalpa section describes nineteen kalpas: amlavetasa-, suvarṇa-, citraka-, kākamācī-, śatāvarī-, bhallātaka-, harītakī-, triphalā-, laśuna-, guḍūcī-, śilājatu-, guggulu-, vārāhī-, kukkuṭī-, eraṇḍataila-, kuṅkuma-, gokṣura-, and alambuṣākalpa.[146]

The work is of great value because it gives the source of its recipes. These sources are, according to P.K. Gode,[147] who first listed them: Agastya, Agniveśa, Amitaprabha,[148] *Amṛtamālā*, *Āryasamuccaya*, *Aśvinasaṃhitā*,[149] *Aśvinīkumārasaṃhitā*, *Aśvinīyasaṃhitā*, Bhadrasenaka,[150] Bhadravartman,[151] Bhāradvāja, Bheḍa,[152] *Bhiṣaṅmuṣṭi*, Bindusāra, Cakṣuṣyeṇa,[153] Caraka, *Cikitsākalikā*, *Dravyāvalī*, Hārīta,[154] Jatūkarṇa, Kāṅkāyana, Kharanāda, Kṛṣṇātreya, Kṣārapāṇi, *Nāvanītaka*,[155] Parāśara,[156] *Śaivasiddhānta*, Śaunaka, *Siddhasāra*,[157] *Śivasiddhānta*, Suśruta, Tīsaṭa, Vāgbhaṭa, Vāhaḍa, Vaitaraṇa, Videha,[158] *Vṛddhavāhaḍa*, *Vṛddhavideha*, *Yogaratnasamuccaya*, and *Yogayukti*.

D.Ch. Bhattacharyya[159] added the following names: Ātreya, *Carakottaratantra*, *Cikitsāsamuccaya*,[160] Gopura, Ravigupta, and *Vṛddhasuśruta*;[161] absent from his list are: Agastya, Bhāradvāja, Bhadrasenaka, Kāṅkāyana, *Śaivasiddhānta*, Vāhaḍa, Vaitaraṇa, and *Yogaratnasamuccaya*.

R.P. Bhatnagar and P.V. Sharma[162] added some more names: Acyuta,[163] Amṛtakumbha,[164] Amṛtaprabha or -prabhā,[165] Aupadhenava, Bhāluki, *Cikitsāsāra*, *Cikitsātiśaya*,[166] *Dhānvantara*, Dhanvantari, Kālapāda,[167] *Mahendrakalpa*, Nāgārjuna,[168] Rudrasenaka,[169] Śālihotra, and Vaṅgadatta; absent from this list are:[170] Agastya, Bhadrasenaka, *Śaivasiddhānta*, *Śivasiddhānta*, Tīsaṭa, Vaitaraṇa, and *Yogaratnasamuccaya*.

Niścala mentions the *Svalpavāgbhaṭa* as one of Candraṭa's sources;[171] he also reproduces recipes which Candraṭa took from some unspecified treatise (tantrāntara).[172] Anantakumāra's quotations show that Candraṭa borrowed from the *Īśānayoga*,[173] *Mahodadhi*,[174] and *Śacīmata*.[175] Anantakumāra also quotes a recipe derived from Candraṭa that was written on a stone pillar (śilāstambha) by the Yavanas.[176]

The *Yogaratnasamuccaya* is the same as the *Candraṭasaṃgraha*, quoted by Niścala; it may also be identical with the *Candraṭasāroddhāra*,[177] usually separately listed.[178]

Candraṭa's collection of formulae was well known in former ages, for it is repeatedly quoted by Niścala.[179] Soḍhala was inspired by it when he composed his *Gadanigraha*.[180] The work was one of the sources of Cakrapāṇidatta's *Cikitsāsaṃgraha*.[181] It is also one of the sources of Dattarāma's *Bṛhadrasarājasundara*,[182] the *Bhāratabhaiṣajyaratnākara*, and the *Rasayogasāgara*.[183]

The work is probably quoted as *Yogaratnasamuccaya*[184] in the *Bhesajjamañjūsāsannaya* (which refers to Candraṭa too) and the *Yogaratnākara*. Hemādri's citations from a *Yogaratna* are in all probability from Candraṭa's work.[185]

Anantakumāra's quotations from Candraṭa[186] are undoubtedly from the *Yogaratnasamuccaya*. Niścalakara, Śivadāsasena,[187] Śrīdāsapaṇḍita and Śrīkaṇṭhadatta refer to Candraṭa or quote from him as the author of a therapeutic work which contains a large number of formulae, i.e., the *Yogaratnasamuccaya*. Ṭoḍara quotes a verse on the proper doses of various type of kaṣāya, which may be from the *Yogaratnasamuccaya*.[188]

Candraṭa did not recognize saṃgrahagrahaṇī as a distinct type of grahaṇī.[189] His readings of Caraka and Suśruta differed occasionally from those accepted by other authors.[190]

The works by Candraṭa called (4) *Yogamuṣṭi*[191] and (5) *Dravāyavalī*[192] are recorded by P.V. Sharma;[193] the (6) *Vaidyatriṃśaṭṭīkā* is only mentioned by Th. Aufrecht[194] and in the NCC.[195]

Śivadāsasena quotes from a *Vṛndaṭīkā* by Candrāṭa,[196] which probably means that Candraṭa wrote a commentary on Vṛnda's *Siddhayoga*.

The author

The only fact known is that Candraṭa was the son of Tīsaṭa. The first verse of the *Yogaratnasamuccaya* shows that he followed his father's footsteps in being a sun-worshipper.[197]

Date

As discussed in the section on the date of Tīsaṭa, the terminus ad quem for the composition of the *Cikitsākalikā* is provided by Niścalakara's statement that Cakrapāṇidatta (about A.D. 1050) utilized Tīsaṭa's work in writing his own therapeutic compendium.[198] The earliest author after Cakrapāṇidatta to quote from Candraṭa is Śrīkaṇṭhadatta in his *Vyākhyākusumāvalī*.[199] The terminus post quem of Tīsaṭa and Candraṭa has been deduced from a remark at the beginning of the latter's commentary on the *Cikitsākalikā*, proving that he was acquainted with Haricandra's and Jejjaṭa's commentaries.[200] As Jejjaṭa's date is disputed,[201] it is preferable to depart from another fact in establishing the upper chronological limit. This fact consists of Candraṭa's quoting the *Siddhasāra*[202] and its author, Ravigupta,[203] who lived about A.D. 650. This fixes the period of Tīsaṭa and Candraṭa between 650 and 1050. If Candraṭa wrote a commentary on Vṛnda's *Siddhayoga*, as seems to follow from a remark of Śivadāsasena,[204] the dates of Tīsaṭa and Candraṭa fall within the period 900–1050.[205]

Govardhana

Govardhana[206] was the author of several medical works: (1) a commentary (ṭīkā) on the *Bṛhattantrapradīpa*;[207] (2) *Karmamālā*, a commentary on the *Yogaśataka*;[208] (3) *Kaumudī*;[209] (4) *Nyāyasārāvalī*;[210] (5) *Paribhāṣāvalī*.[211] All these works are quoted in Niścalakara's *Ratnaprabhā*.[212]

The *Ratnamālā*, quoted by Niścala,[213] is also a work of Govardhana according to D.Ch. Bhattacharyya[214] and P.V. Sharma.[215]

Some add to Govardhana's works the *Cikitsāleśa* and *Rogapradīpa*.[216]

An unspecified work of a Govardhana is quoted in Gopāladāsa's *Cikitsāmṛta*.

Govardhana is later than Amitaprabha[217] and the Mādhava who wrote the *Yogavyākhyā*.[218] D.Ch. Bhattacharyya[219] supposed Govardhana to be later than Vṛnda and to be a contemporary of Cakrapāṇidatta.[220] Some clues in Niścala's *Ratnaprabhā* may point to Govardhana as an author who is later than Ravigupta, Jejjaṭa, Īśvarasena, Īśāna, and Gadādhara, but earlier than Mādhava, Cakrapāṇidatta and Bakula.[221]

Govardhana is reported to be a son of Cakrapāṇi.[222]

The *Jīvakapustaka*

The *Jīvakapustaka* is a collection of prescriptions, preserved in Sanskrit and in a Khotanese version.

The manuscript of the *Jīvakapustaka*[223] contains three separate tracts,[224] which means that it is a typical 'Sammelhandschrift'. Each tract begins with the word siddham (success). As neither a title nor a colophon are extant, and as the text has not been traced elsewhere, the convenient label *Jīvakapustaka* has been assigned to it.[225]

Contents
The treatise[226] contains a series of prescriptions, many of which have separate names, together with indications on their use. It begins as an exposition of the Bhagavant to Jīvaka, who is called 'the king of physicians' in the Khotanese version. The Sanskrit text is mainly in ślokas and so corrupt that it can hardly be read. The Khotanese translation, based on this corrupt Sanskrit text that was hardly intelligible to the one who rendered it into Khotanese,[227] is also metrical and is enlarged with regard to the Sanskrit original; it enumerates all the items of comprehensive Sanskrit terms like daśamūla, etc., and gives detailed instructions on the way the medicines should be prepared. Its most striking feature is the insistence on specifying in each instance the appropriate quantity of each drug and the amount of milk, water or oil required, also when those items are not found in the original Sanskrit. For this purpose a great variety of terms of measure is used.[228]

The prescriptions are divided into four sections, containing prescriptions for an agada, ghees (ghṛta),[229] oils (taila) and powders (cūrṇa). J. Filliozat identified some of the formulae;[230] later, many more could be traced by R.E. Emmerick.[231]

Date
One of the clues to the chronological position of the *Jīvakapustaka* consists of the fact that several formulae were borrowed from the *Siddhasāra*,[232] which makes it clear that it is later in date, probably considerably later, than the latter.[233]

The MS of the *Jīvakapustaka* cannot be dated precisely. No detailed palaeographical study of the cursive Brāhmī script as used in Central Asia has yet been made. The language of the Khotanese version is 'late Khotanese'. All that can be said from the point of view of the language is that the text must have been written before the year A.D. 1000, after which no Khotanese was written.[234]

The *Jvarasamuccaya*

The *Jvarasamuccaya*[235] is an anonymous monograph on fevers, dating from the tenth century.[236]

Authorities and works quoted are *Āśvina*, Bhāradvāja, Bheḍa, Bhoja, Caraka, Hārīta, Jatūkarṇa, Kapilabala, Kaśyapa, and Suśruta.[237] The quotations from Kaśyapa often agree with the text of the *Kāśyapasaṃhitā*.[238] Parts of the long citation from the *Bhālukitantra*, occurring in the *Madhukośa* on the *Mādhavanidāna*,[239] recur, with variants,

in the *Jvarasamuccaya*, where they are attributed to Kaśyapa.[240]

The *Kriyākālaguṇottaratantra*

The *Kriyākālaguṇottaratantra*[241] is a Tantric text bearing upon medicine. It is in the form of a dialogue between Śiva and Kārttikeya. The latter puts questions to his father Śiva, wanting instruction about gāruḍamantras against poison, the characteristics of serpents and of demons, especially those who attack children, about embryology, and other subjects. The work is divided into three kalpas, named after the deities Krodheśvara, Aghora, and Jvareśvara.[242]

This Tantra dates from before the eleventh century, because Kṣemarāja, the pupil of Abhinavagupta, quotes it several times in his commentary, called *Netroddyota*, on the *Netratantra*.[243] One of its MSS dates from 1184.[244]

The *Kriyākālaguṇottara* is quoted in the *Paraśurāmapratāpa*[245] and the *Śiśurakṣāratna*. It was one of the sources of Nāgārjuna's *Kakṣapuṭa* and is mentioned in the Mantrakhaṇḍa of Nityanātha's *Rasaratnākara*.

The *Laṅkāvatāra*

A treatise called *Laṅkāvatāra* is said to be a Tantric work on medicine. One of the MSS dates from A.D. 908.[246]

The *Paryāyaratnamālā* by Mādhava Bhiṣaj or Mādhavakāra

The *Paryāyaratnamālā*[247] or *Ratnamālā*[248] is a lexicon, written by Mādhava Bhiṣaj[249] or Mādhavakara.[250]

Contents
The text of the *Ratnamālā* consists of about 1,300 ardhaślokas, but the edition numbers them from one to 1758 in the following way: ardhaślokas 1–578, pādas 579–1424, ardhapādas 1425–1472, ardhaślokas 1473–1758.

The treatise is primarily a nighaṇṭu, and, though it goes beyond the limits of medical terminology, the author wrote it for the sake of physicians, as appears from one of his introductory verses: "What can a valiant man do in a battle if he has no weapons? With regard to therapy the same holds true for a physician who has no (knowledge of) synonyms".

The *Ratnamālā* consists, apart from six introductory (1–12) and two concluding verses (1755–1758), of a synonymous (13–1472) and a homonymous section[251] (1474–1640), followed by a section containing definitions (1642–1754). The contents are summarily listed in ardhaślokas 9–12. The synonyms are dealt with first in ślokas (13–216) and ardhaślokas (218–578), followed by pādas (580–1424) and ardhapādas (1425–1472). The synonyms are usually given separately, in the nominative, without making making much use of dvandas and ekaśeṣas. The names of plants, animals, inorganic substances, articles of food, etc. (13–854), are accompanied by

their vernacular counterparts. The homonyms are divided into apyarthas (words with a single additional meaning each, given in the locative and indicated by the particle api), dvyarthas (words with two meanings) and bahvarthas (words with more than two meanings), distributed as follows: apyarthas (one apyartha in one pāda) (1474–1504), dvyarthas (one dvyartha in one pāda) (1505–1554), dyvarthas (one dvyartha in one ardhaśloka) (1555–1586), and bahvarthas (1587–1640). The bahvarthas have from three to eight meanings and are arranged in such a way that the number of acceptations increases. The section dealing with definitions covers dietary articles (1642–1686), paribhāṣā (technical rules; 1687–1735), and māna (weights and measures; 1737–1754). The junctions between the various parts are indicated in the text itself (217; 579; 1473; 1641).

The synonymous section is concerned with medicinal plants (13–188), followed by a heterogeneous series of terms (189–217) and medicinal plants again (218–421). The work proceeds with minerals and metals (422–445), salts and caustic substances (446–451), sugar and related articles (452–455), medicinal substances (456–480), dairy produce (481–486), cow dung (487), names of animals (488–508), human beings and related terms (509–539), various terms (540–561), deities and other non-human beings (562–574), religious terms (575–578), medicinal substances and some medical terms (580–734), animals (739–822), various terms (823–828), cows and products of the cow (839–848), cereal products (849–862), medical terms (863–876), anatomical terms (877–944), parts of plants (945–954), various terms (955–1296), the seasons (1297–1302), the lunar mansions (1303–1314), colour adjectives (1315–1330), various terms (1331–1388), names of diseases (1389–1424), and various terms (1425–1472).

Special features

Many rare words are found in Mādhava's *Ratnamālā*. The group of medicinal plants called aṣṭavarga is mentioned (3.43–44).[252] Unusual names of plants are: āśīta(ka) (651);[253] aśokarohiṇī (352);[254] aṣṭapādikā (311);[255] asthisaṃhāra (389);[256] cela (712);[257] coraśuṇṭhī (295);[258] dhustūraka (405);[259] hastikarṇadala (= hastikarṇapalāśa; 100);[260] hilamocikā (374);[261] jūrṇā (697);[262] kapāṭacakra (416);[263] kāśmīraja as a synonym of kuṅkuma (264);[264] kulatthikā (= vanakulattha; 420);[265] kumbhāṭa (654);[266] madhukukkuṭī (152);[267] pītamudga (694);[268] poṭagala (463);[269] ṛkṣagandhā (= sarpagandhā; 470);[270] sarpākṣī (386);[271] sudarśanā (363);[272] timiraka (= nakharañjaka; 308);[273] uccaṭā (395).[274]

Remarkable words are moreover: antragranthi as a synonym of atīsāra (1401);[275] bhiṣagjita as a synonym of cikitsā (528), though it usually means auṣadha;[276] kothaka as a synonym of kukūṇaka (1390); nirvāhin and suvāhikā as names of a disease (1400);[277] tarṣabhū as a synonym of kloman (909); vātāṇḍa and vradhna as synonyms of the disease called vṛddhi (1415); yonyarśas as denoting (yoni)kanda (1392).

Mādhava and his *Ratnamālā* are quoted or referred to by Bhānuji Dīkṣita in his *Rāmāśramī* or *Vyākhyāsudhā* on the *Amarakoṣa*, written in the first half of the seventeenth century, probably between A.D. 1620 and 1640,[278] Hārāṇacandra in his commentary on the *Suśrutasaṃhitā*,[279] Haricaraṇasena in his *Paryāyamuktāvalī*,[280]

Mallinātha in his *Amarapadapārijāta* on the *Amarakoṣa*, dating from the fourteenth century,[281] Medinikara in his *Nānārthaśabdakoṣa*, written in the thirteenth century, probably between 1200 and 1275,[282] Nārāyaṇa Vidyāvinoda in his commentary on the *Amarakoṣa*,[283] Niścalakara,[284] Rādhākāntadeva in his *Śabdakalpadruma*,[285] Rāyamukuṭamaṇi in his *Padacandrikā* on the *Amarakoṣa*, composed in 1431/32,[286] Śivadāsasena in his commentary on Cakrapāṇi's *Dravyaguṇa*,[287] Śivadatta in the auto-commentary on his *Śivakoṣa*, dating from 1677/78,[288] Umeśacandragupta in his *Vaidyakaśabdasindhu*, and Vandyaghaṭīya Sarvānanda in his *Ṭīkāsarvasva* on the *Amarakoṣa*, written in 1159/60.[289] Mādhava's lexicon is said to be quoted several times in Vidyāvinoda Nārāyaṇa's commentary on the *Amarakoṣa*.[290]

A work called *Ratnamālā* that may be Mādhava's lexicon is quoted by a Kaumudīkāra who was one of Rāyamukuṭamaṇi's sources.[291] The *Ratnamālā* may have been known to Vijayarakṣita who quotes from it without specifiying the source;[292] Vācaspati's commentary on the *Mādhavanidāna* contains the same quotation, adding that it is taken from the *Abhidhāna*,[293] which indicates that it may be different work, whether earlier or later than the *Ratnamālā*. According to T. Chowdhury's note to his edition of the text, the work is also quoted in Yādavaprakāśa's *Vaijayantī* (eleventh century), Kṣīrasvāmin's commentary on the *Amarakoṣa*, composed in the first half of the twelfth century,[294] and the *Dhanvantarīyanighaṇṭu*. A *Nāmanighaṇṭu* by Mādhava, quoted by Devarāja Yajvan in his *Niruktabhāṣya*,[295] may be the *Paryāyaratnamālā*.[296]

The author

Mādhava Bhiṣaj was a son of Indrakara and lived at Śilāhrada. D.Ch. Bhattacharyya has observed[297] that Śilāhrada appears to have been a famous place, at a considerable distance from Pāṭaliputra, for it is mentioned in an illustration in Vācaspatimiśra's *Nyāyakaṇikā*:[298] "Someone who has obtained a favour at Pāṭaliputra will certainly not remember it without confusion at Śilāhrada". The ancient Śilāhrada has been identified as the modern Paṭṭharghaṭṭā near Bhāgalpur in Bihār, at a certain distance from Paṭnā, the ancient Pāṭaliputra.[299] This Paṭṭharghaṭṭā is the site of the Vikramaśīla university which flourished during the Pāla dynasty.[300] The vernacular names of medicinal plants, added to the Sanskrit synonyms of the *Paryāyaratnamālā* in the margin of the text, are in favour of assigning a Bengal origin to the author,[301] if they indeed derive from him and have not been added later.

Date

Since it is an established fact that Vandyaghaṭīya Sarvānanda quotes from the work, the *Ratnamālā* was composed before A.D. 1159/60. If it could be proved that Yādavaprakāśa used it in composing his *Vaijayantī*, it would be earlier than the eleventh century. Internal evidence, consisting of the absence of ahiphena and bhaṅgā, together with their synonyms, points to a period preceding the eleventh century.

Indicative of a date later than about 800 are the following points. Firstly, the presence of gandhaka (435), pārada (719) and abhra (720), as well as pūti and its synonym khaṭṭāsikā (794). Secondly, the occurrence of vātiṅgana (360), often supposed to be of Persian origin, as a synonym of vārtākī, the eggplant, *Solanum melongena* Linn.[302]

Thirdly, the presence of the disease called (yoni)kanda (1392), described for the first time in the *Mādhavanidāna*, though the term is used in a different sense in the *Ratnamālā*. The word vradhna as a synonym opf vṛddhi (1415) is adduced by P.V. Sharma as indicating that the *Ratnamālā* is posterior to Vṛnda's *Siddhayoga*,[303] but that argument is not compelling because Vṛnda (40.20) describes vardhma (= vradhna) as separate from vṛddhi, which would rather point to the posteriority of Vṛnda. Unconvincing too is P.V. Sharma's claim that the last verse of the *Ratnamālā* imitates a stanza from Māgha's *Śiśupālavadha* (2.112),[304] dating from the seventh century. P.V. Sharma's arguments for regarding the *Ratnamālā* as posterior to the *Aṣṭāṅganighaṇṭu* should be regarded as tentative and doubtful.[305]

Summarizing, it can be said that Mādhava's *Ratnamālā* probably dates from the period 800–1000.[306] The earlier view that it was written by the author of the *Mādhavanidāna* should completely be given up.[307]

Another work called *Paryāyaratnamālā* was written by Maheśvara Miśra.[308]

Māhuka or Mādhuka

Māhuka or *Mādhuka* was the author of the *Haramekhalā*,[309] a treatise written in Prakrit verse.[310]

Contents

The work, written in āryā metre, has a total of about 1,500 verses.[311] It is arranged in seven chapters (pariccheda), in conformity with the seven hoods of the serpent Vāsuki, which form the girdle (mekhalā) of Śiva (Hara).[312] The number of verses of some chapters differs in the editions: chapter one 191 (11+19+6+155 in ed. b); chapter two 103 (edition a) or 101 (edition b);[313] chapter three 71 (both editions); chapter four 389 (edition a) or 415 (edition b);[314] chapter five 281 (edition a).

The *Haramekhalā* deals with a diversity of subjects. The first chapter, called koūhalāhiāra (kautūhalādhikāra),[315] opens with a maṅgala addressed to Paśupati, nine verses on the author, and a verse explaining the purpose of the book.[316] A series of nineteen verses follows, introducing the subject of chapter one by giving examples. This subject consists of unusual phenomena giving rise to curiosity and wonder (kautūhala or āścarya), which are brought about by the power of gems, drugs, and mantras. A series of six verses extols the adroit person who makes a living by producing these phenomena. The remainder of chapter one describes a long series[317] of methods (prayoga) of bringing about these exciting events, which, amongst many other things, consist of recipes to make the mouth beautifully red when chewing betel (21–25), recipes for an ink by means of which one can write a book that may be read in utter darkness (34–35) or which makes letters written on the back of the hand visible on the palm (36), procedures to make madirā smell like water (45), to write letters which remain floating on water (47), to make fruits fall down from trees (58–59), and produce objects invisible to the eye (60), procedures that enable a person to swim under water like a fish (100) or to walk on the surface of water (102), etc. The second chapter, called riujaṇadamaṇa (ripujanadamana; 2.101), is, as its title indicates, concerned with procedures to be used against enemies.[318] Chapter three is about subjugation (vaśīkaraṇa).[319]

The fourth and longest (vipula; 4.1) chapter is the most interesting one with regard to medicine and deals with the treatment of diseases, or, to use the term employed by the author, sarīrapariamma (śarīraparikarman), i.e., body care. The order in which the diseases are mentioned is chiefly, though not consistently, based on the division of medicine into eight limbs: śālākya (2–87), kāya and śalya (88–259), bhūtavidyā (260–265), agada (267–301), kaumārabhṛtya (309–380), rasāyana (385–392), and vājīkaraṇa (393–396). A second and most unusual ordering principle in the sections on śālākya, kāya and śalya is the arrangement of the diseases from top to bottom.

The section on śālākya begins with prescriptions which provide even a bald person with a beautifully curly crop of hair (2–10), and proceeds with formulae against diseases of the head (11–30), amongst which those turning grey hair black again have a prominent place (20–28). Thereafter the following subjects are covered: diseases of the ears (31–41), procedures which increase the size of the earlobes and also that of the penis (42–49), eye diseases (50–66), kāmalā (67–69), diseases of the nose (70–71), and diseases of the mouth (72–87). Then vyaṅga is dealt with (88–92), and prescriptions are given which make the face beautiful like the moon (93–105).

The section on kāya and śalya is concerned with a long series of subjects: gaṇḍamālā (105–109), apabāhuka and diseases of neck and shoulders (110–111), prescriptions which make the female breasts large and firm, increase the size of the earlobes and also that of the male member again (112–119), plīhodara and udara (120–123), abscesses (124), udara (125), kṛmi (126), kuṣṭha and related disorders (127–142), prescriptions which give beauty to the female and male body and remove a bad body odour (143–149), raktapitta, kāmalā and pāṇḍuroga (150–151), pīnasa (152–153), svarabheda (154), cough (155–156), hiccup, shortness of breath and some other disorders (157–159), kṣaya (160–165), śūla (166–168), atisāra, grahaṇī and viṣūcikā (169–174), prameha (175–176), mūtrakṛcchra (177), aśmarī and śarkarā (178–181), gaṇḍamālā and kuraṇḍa (182), diseases of the male organ (183–185), recipes which activate the digestive fire (199–200), vomiting (201), morbid thirst (202–203), fever (204–220), recipes which cause insomnia or cure it (221–225), ūrustambha (226–229), fractures (230), diseases of the feet (231–234), maśa (235–237), burns (238–239), śvayathu (provoked by the fruits of bhallātaka, i.e., *Semecarpus anacardium* Linn.f.; 240), vraṇa (241–249), naṣṭaśalya (250–251), fistulas (252–254), raktamaṇḍala (255), arbuda, granthi and gaṇḍamālā (256–259).

The section on bhūtavidyā is about apasmāra (269), bhūtas and grahas (261–265). A prescription against cāturthaka (266) is loosely inserted. The section on agada is concerned with the poisons of many animals and some poisons of a different origin (e.g., kodrava and dhattūraka, 276; pūgaphala, 277–278). It is followed by prescriptions against piṭakā (302–303), jvālāgardabha (304) and śītalikā (305–308).

The section on kaumārabhṛtya deals with pradara (309–314), raktagulma and amenorrhoea (315–316), recipes which assure the birth of a son (317–318), promote pregnancy (319–321) or prevent it (322–324), prevent miscarriage (325–328) and bleeding during pregnancy (329); it contains a prescription against pain after an

abortion (330), prescriptions assuring an easy delivery and separation of the afterbirth (331–340); it deals with yoniśūla (341–344), the promotion of milk secretion (345–346), diseases of the breasts (346–347), kikkisika, i.e., striae (349), yonivibhraṃśa (350–351), prescriptions which make the female organs attractive (352–353, 355–358) and devoid of hair (359–361), and the restoration of virginity after intercourse (354). It ends with verses on the protection of children against grahas (362–367), with recipes against children's diseases (368–374), and recipes which assure that children grow up happily and in good shape (375–380).

The section on rasāyana and vājīkaraṇa covers the usual subjects. The chapter ends with the treatment of some disorders occurring in cows, buffaloes and mules (398–413), and, finally, a verse on a procedure which controls the colour of the feathers of newly hatched doves (414).

Verses 183–206 of this chapter are absent from edition a and replaced there by a text in verse and prose called *Puttalikāpañcaviṃśatikā*, concerned with harming enemies by means of magical procedures against their effigy (puttalikā).

Chapter five[320] is concerned with the making of fragrant compounds and consists, according to the author himself (5.1), of an extract from various extensive works on the subject (gandhaśāstra).[321] It deals with[322] ambuvāsanavidhi (the preparation of perfumed water; 3–8), dantakāṣṭhavidhi (toothbrushes; 9–11), kavala (water for rinsing the mouth; 12), madhūcchiṣṭavidhi (beeswax applied to the lips; 13–14), netraparikarmāñjana (collyria; 15), mukhavāsa (perfumed water to scent the breath; 16–32), (sugandha)taila (fragrant oils; 33–58), udvartanasaṃvidhi (fragrant unguents used in rubbing the body; 59–61), snānakriyā (62–69) and snānopakaraṇa (70–85) (fragrant substances used during and after bathing), paṭavāsa (fragrant powders used for perfuming clothes, etc.; 86–87), dhūpa (88–109) and dīpavarti (110–120) (various forms of incense), sugandhasaṃvidhi (perfumes used as ointments; 121–158), various fragrant substances (159–192), substitutes (pratinidhi) for rare and expensive natural perfumes (kastūrikākṛti; 193–195), āsavavidhi (fragrant substances made by means of fermentation; 196–210), substitutes for rare and expensive natural perfumes: karpūrakṛti (211–213), kuṅkumakṛti (249–256), karpūratailakṛti (257–263), lavaṅgakṛti (264), elākṛti (265), and kuṣṭhakṛti (266), sahakāra preparations (267–269), and, finally, puṣpadrāvaṇayukti (the extraction of essential oils from flowers, such as mallikā, campaka and ketakī; 270–272).[323]

Then follows, after an introductory verse (274), a nighaṇṭu, which gives, not in verse but in simple enumerations, synonyms of Prakrit terms, together with their Sanskrit counterparts.

Most of these words are names of plants which occur in the verses of the *Haramekhalā*, but they are preceded by names of gods, anatomical terms and names of animals, and followed by technical terms. The chapter ends with some verses on the utility of the *Haramekhalā* and its nighaṇṭu (275–277), its author (280), and the date of its composition (281). One of these concluding verses (278) indicates that the end of the treatise has been reached. Nevertheless a sixth and seventh chapter are known to exist. Chapter six is about arboriculture (pādapaparikarman) and food (āhāravidhi).[324] Chapter seven deals with inorganic substances (minerals, salts, gems,

and metals).[325]

The *Haramekhalā* is quoted by Basava in his *Śivatattvaratnākara*, by Kṣīrasvamin,[326] Niścalakara,[327] in the *Paraśurāmapratāpa*, by Nityanātha in the *Rasaratnākara*,[328] Śivadāsasena,[329] Śrīkaṇṭhadatta in the *Kusumāvalī*,[330] Śrīvallabhagaṇi in his commentary on Hemacandra's *Nighaṇṭuśeṣa*,[331] and Ṭoḍara. It is referred to by Kokkoka in his *Ratirahasya*,[332] by Nityanātha[333] and Śrīdāsapaṇḍita. Cakrapāṇidatta may have derived some formulae from it.[334] The *Kakṣapuṭa* mentions the *Haramekhalā* as one of its main sources.[335] The *Kāmaratna* contains a recipe said to derive from the author of the *Haramekhalā*.

A *Śivamekhalā*,[336] quoted by Ṭoḍara,[337] is probably the same as the *Haramekhalā*.

Special features

Noteworthy terms and features of the *Haramekhalā* and its commentary in the field of nosology are: jhiṇijhiṇiā (jhiṇijhiṇikā; 1².15),[338] a disorder explained as suptapādatā (numb feet); the use of the term lūā (lūtā; 2.19–20), probably in the sense of inflamed sore; uppiāsa (4.11), explained as a synonym of the disease called dāruṇa, characterized by tvakcaṭana, i.e., cracking of the skin; dāruṇa (dāruṇaka; 4.13) is said to be a disease of the skin of the head and to be the same as uppiāsa; arūsiā (arūṃṣikā; 4.16) is said to consist of small pustules; the description of head lice (4.18); pūiroa (pūtiroga; 4.35), the same as karṇasrāva; añjaṇaguliā (añjanagulikā; 4.66) as a synonym of an eye disease called añjanapiṭakā; khuṃkhuṇaäsoṇia (4.70) as designating a nosebleed (nāsikāsirāśoṇita); avvaradigubbhavaghuṇadantaä (aparadigudbhavaghuṇadantaka; 4.86); gaṇḍāpacī as a synonym of gaṇḍamālā (4.105); caraṇadaddu (caraṇadadru; 4.129), a disease of the skin of the feet; khasarāi (khasarāṇi; 4.130) as a skin disease; dubbhita (durbhita; 4.140) as a synonym of sidhma; rāämanda (rājamanda; 4.161) as a synonym of rājayakṣman, also called nṛpavyādhi; the presence of pariṇāmaśūla (4.166); a variety of śarkarā, called attaṇḍasakkara (atyaṇḍaśarkarā; 4.180–181); galagaṇḍa as a synonym of gaṇḍamālāpacī (4.182); the term kuraṇḍa (4.186–188), used to designate a swelling of one or both testicles (aṇḍa- or vṛṣaṇavṛddhi); raṃhaṇīvāa (raṅghaṇīvāta; 4.228–229) as a synonym of ūrustambha;[339] a disease of the skin of the legs called rattamaṇḍala (raktamaṇḍala; 4.255); the description of keloid, vaṇakiṇagaṇṭhī (vraṇakiṇagranthi; 4.259); a disease of the skin called kīḍapiḍaā (kīṭapiḍakā; 4.302); the mention of jvālāgardabha and jālagardabha as synonyms (4.304); the presence of sīaliā (śītalikā; 4.305–306), put on a par with visphoṭa; the mention of an epidemic form (upasargaja) of this disease (4.306); mahāruhira (mahārudhira; 4.310–311) and atirajas (4.310 and 312) as synonyms of pradara; a disease of the female breasts called ṭhaṇakīkaḍa (stanakīkaṭa; 4.346); the description of varaṅgavibbhaṃsa (varāṅgavibhraṃśa; 4.350), probably to be equated with prolapsus uteri; a children's disease called vacchāruka (vatsārūṃṣi; 4.373), characterized by the presence of parasites in the lesions on the head; khuṃkhuṇiā (khuṅkhuṇikā; 4.374) as a synonym of of kukkūṇaka; a children's disease called mutthai (mustakī; 4.374), in which small pustules arise on the interior of the eyelids; a disease of horses and mules called variphoḍa (vārisphoṭa; 4.411), characterized by blisters.

These peculiarities show that Māhuka has not been influenced by the *Mādhavani-*

dāna; the order of the diseases of that work has not been adopted, and the new disorders, described for the first time by Mādhava, are absent, with the exception of pariṇāmaśūla (4.166).

Māhuka's therapeutical prescriptions are partly of a magical nature. Enlargement of the spleen, for example, is treated by throwing away, as far as possible, the root of indravāruṇī, divided into two halves, while pronouncing the name of the patient (4. 121).[340] Products of animal origin are repeatedly used,[341] as well as mercury.[342] Opium is absent.

Yavanas are referred to as experts in the art of perfumery (5.58).[343] The Tantric Buddhist deity Kurukullā is mentioned in the introductory verses.[344]

The *Haramekhalā* contains many interesting or rare names of plants and animals, both in its prayogas and its nighaṇṭu. Some noteworthy names of plants are: āpallī (4. 252);[345] cakrāṅkā (= sudarśanā; 1.69; 4.124);[346] caṇḍālikā (= raktakañcukā; 3.39);[347] gomaya (5.234);[348] gorambhā (3.9; 4.400);[349] gṛhakumārī (4.233);[350] jhiṇṭuka (= gopālaka; 1.105);[351] jhiṇṭūka (= gopālapīṭhaka; 1.65 and 68);[352] kacchodbhava (= guggulu; 4.189); kanakatvac (4.96);[353] kandalī (3.27);[354] kaṇṭakakarañja (5.159);[355] karabhavāruṇī (3.63);[356] kāravallī (4.54);[357] kirimāla (= āragvadha; 4.148);[358] kuḍuhuñcī (4.71);[359] kukkuramardaka (= rāmaśītalika; 4.346);[360] kuliśataru (= sudhāvṛkṣa; 2.68);[361] mayālī (= potikā; 1.99);[362] māyāphala (4.352);[363] mohanī (3.9);[364] nihuḍuṅgī (= sudhāvṛkṣa, 2.64);[365] paraśucchinna(ka) (1.5; 5.271);[366] suvarṇatvac (4. 93);[367] tāmrāsthikā (= rāṅgiṭṭikā; 1.23);[368] uṣṭravāruṇī (3.53);[369] uttaṇṭakī (4.257);[370] uttaraṇī (= uṣṭravāruṇī; 4.338); valla (= niṣpāva; 4.109);[371] vāluṅka (1.26 and 33);[372] vanadrākṣā (= goṣṭhāmlikā; 4.234);[373] vanakumārī (4.248);[374] varāhakarṇī (4.84);[375] vatsakarkaṭikā (= gopālakarkaṭikā; 4.179).[376]

The author

Māhuka, who mentions his name at the beginning[377] of his treatise and again at the end of chapter five,[378] states that he is a descendent of the great poet Māgha,[379] a grandson of Kavimaṇḍana,[380] a son of Mādhava,[381] and a pupil of Durjayabhaṭṭa[382] of the lineage of Śrīmūladeva.[383] The latter performed miracles at Virajānagara[384] during the reign of Unmattakeśarin,[385] during the reign of Vallabhanarendra,[386] and at Citrakūṭa during the reign of Jayavarāha.[387] Māhuka himself was a resident of Bhillamālapura[388] and wrote his *Haramekhalā* at Citrakūṭa[389] during the reign of Dharaṇīvarāha.[390]

The author was a Śaiva, as appears from the maṅgalācaraṇa, dedicated to Paśupati, and other references.[391]

Date

The *Haramekhalā* was completed on the seventh day of Māgha of the year 887 of an unspecified era,[392] said to be the Vikrama era by the commentator, i.e., A.D. 829/830. This date was accepted by the editors of the two editions of the text, but rejected by D.Ch. Bhattacharyya.[393] According to the latter, no king, called Dharaṇīvarāha, reigned in the region of Citrakūṭa (i.e., Chitor) about 830. Two kings of this name are known; one of these, a Dharaṇīvarāha of the Cāpa family, ruled in Vardhamāna (modern Wadhwān in Kāthiāwār), and the other, a Paramāra prince, in Candrāvatī and

Arbuda (near Chitor) in 1002. Since Wadhan is a long distance from Chitor, D.Ch. Bhattacharyya assumes that the Paramāra king was Māhuka's patron and that the *Haramekhalā* was composed in 887 of the Śaka era, i.e., 965/966. In his view, this date is corroborated by Māhuka's reference to Māgha as a distant forefather. A.N. Upadhye[394] also argued that the Śaka era may be preferable, but he prefers to identify the patron as Dharaṇīvarāha, the Cāpamahāsamantādhipati, who was a feudatory of Rājādhirāja Mahīpāla I of the Gurjara-Pratīhāra dynasty of Kanauj.[395] It is not yet possible to decide which view should be preferred.

The terminus ad quem of the *Haramekhalā* can be established as the eleventh century, because the work was put to use by Cakrapāṇidatta in the eleventh century and was quoted by Kṣīrasvāmin in the first half of the twelfth century.

Another medical treatise by an unknown author and of unknown date, called *Haramekhalātantra*, has summarily been described by P.V. Sharma.[396] It is completely different from Māhuka's work and referred to by the author as a mahauṣadhisamuccaya.

The commentary on the *Haramekhalā*, written by an anonymous author, gives a Sanskrit chāyā of the Prakrit verses and explanations in Sanskrit. It is not only valuable with regard to information on plants, animals,[397] etc., but also in providing detailed instructions on the preparation of medicines and perfumes, and in specifying the diseases mentioned in the text. Quotations are rare; the definitions of pāmā (4.136),[398] jvālāgardabha (4.304)[399] and kukkūṇaka (4.374)[400] are quoted from an unnamed source, as well as the definition of the maximum length of life (paramāyus) in man and various animals (4.389),[401] the rules for cleansing the teeth (dantadhāvanavidhi; 5.11), and the definition of a gaṇḍūṣa and a kavala (5.12). In one case only the author names his source, namely Vāgbhaṭa (4.204).[402] He also summarizes in some verses at the end the topics dealt with in chapter four,[403] and gives, in a series of about thirty verses at the end of chapter five, technical rules (paribhāṣā) for preparing the substances prescribed by Māhuka.

The maṅgala of the commentary indicates that its author was a Śaiva. That he was not the first commentator on the *Haramekhalā* is evident from a remark referring to predecessors.[404] The date of the commentary cannot be established.

The *Jīvasūtra* attributed to Nāgārjuna

The *Jīvasūtra* is attributed to Nāgārjuna.[405] This work, consisting of 205 verses, deals with the following subjects: the objective of the treatise (6–8); the three doṣas (ñes-pa): vāyu (rluṅ), pitta (mkhris) and kapha (bad-kan), which arise from kāma (ḥdod), krodha (khro) and moha (gti-mug) respectively (9); the importance of the body (lus), place of residence (yul) and time (dus), i.e., the seasons, etc., for leading a happy life (10–12); the bodily constitutions (lus; 13–16); the predominance of the doṣas in the three stages of life (17); the predominance of the doṣas in various types of country (yul; 18–19); the relationships between the doṣas and the parts of day and night (20–21); their relationships with the seasons (22–24); the six tastes (ro) and their connections with the

doṣas (25–41); the relationships of the tastes with the guṇas (yon-tan; 42–45); sātmya and asātmya (ḥphrod and mi ḥphrod); 46–53); the regimen during the seasons (54–101); rules for the promotion of longevity (102–133); the non-suppression of natural urges (134–135); rules for the preservation of health (136–168); mutually disagreeing foods and drinks (169–194); rules to be applied in the various stages of life (195–205).

The text is ascribed to a Nāgārjuna of unknown date, but may well have been composed before A.D. 1000. The Sanskrit original, which must have existed, for the Sanskrit title, *Jīvasūtra*, is mentioned in the Tibetan text, has not been preserved.

The *Rasavaiśeṣikasūtra* ascribed to Bhadanta Nāgārjuna

The *Rasavaiśeṣikasūtra*, ascribed to Bhadanta Nāgārjuna,[406] is one of the very few āyurvedic texts in pure sūtra style.

Contents

The basic concepts of āyurvedic pharmacology are the main concern of this treatise, which contains 486 sūtras, arranged in four chapters.[407]

After some introductory sūtras, in which it is stated that dravya, rasa, guṇa, vīrya, vipāka and karman are the roots of health and disease, chapter one deals with prakṛti (the natural state), vikāra (a morbidly altered state), and the distinctions between the two (8–31); the relationships among the doṣas (32–48); the seats (sthāna) of the doṣas and the digestive fire (agni) (49–76); the nature of the doṣas (77–92); the concepts of agni, bala, sātmya, and their interrelations (93–94); the span of life (āyus) and signs foreboding death (ariṣṭa) (95–98); the concepts of dravya, rasa, etc., and their interrelations (99–171).

Chapter two discusses dravya and the differences between dravya and guṇa (1–22); rasa and the way it is distinguished from guṇa (23–29); vīrya (30–36); vipāka (37); karman (38); the five mahābhūtas (39–75); the classification of substances (76–77); the parts of trees and plants in general (78–98);[408] the pāñcabhautika character of the body (99–110) and of the senses (111–122); the varieties of medicinal substances of vegetable, mineral and animal origin (123).[409]

Chapter three is concerned with the six tastes (rasa) (2); conflicting views about the number of rasas (3–5);[410] the many varieties of each rasa (6–10);[411] proofs for the existence of six rasas (11–37);[412] the connections between the tastes and the mahābhūtas (38–43), and between rasa and dravya (47–60); the relationships between the tastes and the doṣas (61–72); the combinations of rasas and their connections with the doṣas (72–110); the guṇas and their relationships with the mahābhūtas (112–117).

Chapter four begins with an enumeration of the eleven types of vīrya and discusses their relationships with the bhūtas (1–26); more types of vīrya (27–30); vipāka (31–55); karman (56); viruddhāśana (57–61); anupāna (62–63); substitutes for drugs (64–66);[413] svasthavṛtta (the regimen in health) and āturavṛtta (the regimen in ill-health, aiming at recovery) (67–69); the pramāṇas (70); the catuṣpāda (71–72), and, finally, the success in treatment (73).

The *Rasavaiśeṣika(sūtra)* is quoted by Candraṭa,[414] Ḍalhaṇa,[415] Priyavrat Śarmā,[416] and Satyadeva Vāsiṣṭha.[417]

Special features[418]

The author does not blindly follow established traditions, but works out his own position with regard to basic āyurvedic concepts. Rather often he quotes a series of conflicting views on a particular subject, which are repudiated before he begins bringing forward his own opinion.[419] A noteworthy trend is the repeatedly expressed rejection of a hierarchical ordering of concepts like agni, bala, and sātmya (1.94), dravya, rasa, guṇa, vīrya and vipāka (1.164), though this type of order is a characteristic of the early saṃhitās. This trend is coupled to an insistence on medical experience as the decisive factor on which to base an appraisal of the relative importance of all these concepts.[420]

Interesting features are also the mention of two series of seven prakṛtis (1.31),[421] the enumeration of only ten guṇas (3.111),[422] and the recognition of a large number of vīryas (4.1 and 27).[423] Remarkable is the absence of a discussion on prabhāva, which is an important notion in the *Carakasaṃhitā* and other texts. Anupānas are of six types, dependent on their action: āhārasātma, āhāravīryaghna, āhārānulomana, āhāraviparīta, āhāraśodhana, and āhāraprajaraṇīya.[424] The pramāṇas (means of acquiring valid knowledge) recognized are pratyakṣa, anumāna, upamāna, āgama, arthāpatti, and sambhava (4.70).[425]

The author

The name of the author is not mentioned in the text, but he is referred to as Bhadanta Nāgārjuna in the colophons of Narasiṃha's commentary on the work. His title Bhadanta,[426] and also the addition of the term pravrajita to his name,[427] may imply that he was regarded as a Buddhist, at least in later times.[428] Ḍalhaṇa, who once quotes from the *Rasavaiśeṣikasūtra* without mention of its title, ascribes it to Nāgārjunācārya.[429] J. Filliozat, one of the very few scholars to devote his thoughts to the work and its author, concludes that, as the views expounded in the work do not conflict with those of the *Mūlamadhyamakakārikā* of the Buddhist philosopher Nāgārjuna, both texts may have been composed by one and the same author.[430] This identity cannot be established with any certainty; on the contrary, it seems much more likely that the two works were written by different persons, since no traces of Buddhism can be found in the *Rasavaiśeṣikasūtra*, which is mainly based on Sāṃkhya and Vaiśeṣika views.[431] Sankara Menon[432] considered Bhadanta Nāgārjuna to be the same as a certain Nāgavīrya, mentioned as his guru by Narasiṃha in his commentary (ad 1.2) on the work. This view cannot be substantiated and is completely arbitrary.[433]

Date

The period of composition is hard to determine, but a quotation from the *Rasavaiśeṣika* in Candraṭa's commentary on Tīsaṭa's *Cikitsākalikā* provides a terminus ante quem, namely the period A.D. 900–1050.[434] Sankara Menon[435] was of the opinion that, if Bhadanta Nāgārjuna was the preceptor of Narasiṃha, he may be considered to belong to the seventh century;[436] in that case he lived, together with Narasiṃha, a life of seclu-

sion in a vihāra of the Taluk[437] of Shertalla, most probably at Tiruviḻai. P.V. Sharma[438] expressed as his view that the work may have been composed in the fifth century,[439] by the Nāgārjuna who revised and completed the *Suśrutasaṃhitā*. J. Filliozat dates it in the age of the Buddhist philosopher Nāgārjuna, i.e., the first or second century.[440] It is impossible to reach precision about the chronological position of the text, but more data may become available after it has been carefully studied.

Narasiṃha's commentary (bhāṣya) on the *Rasavaiśeṣikasūtra*

Narasiṃha's commentary (bhāṣya) on the *Rasavaiśeṣikasūtra*[441] is essential for understanding the often obscure and very concise sūtras. It presents a considerable number of quotations, usually without naming the source, with the exception of Bharadvāja (1. 2), Caraka (1.6), Nimi (3.36 and 4.30), Suśruta (1.6), and Urabhra (3.36). Important is the absence of quotations from Vāgbhaṭa's works, the more so when it is conceded that the *Rasavaiśeṣikasūtra* and its commentary were composed in Kerala,[442] where Vāgbhaṭa is the leading authority in āyurvedic theory and practice. Some scholars[443] inferred from this that Narasiṃha must be earlier than Vāgbhaṭa. As it is improbable that the latter became the foremost authority for physicians in Kerala immediately after the composition of his works, it is also legitimate to suppose that, in Narasiṃha's times, Vāgbhaṭa had not yet the great prestige he acquired later.

An important element in the discussion of Narasiṃha's date is a reference to Subandhu's *Vāsavadattā* (ad 1.2), a work that became popular in Kerala,[444] and that probably dates from the seventh century.[445] This provides us with a terminus post quem of Narasiṃha and shows that he is contemporaneous with or posterior to Vagbhaṭa.

Sankara Menon, who put forward that Nāgavīrya, mentioned by Narasiṃha (ad 1.2) as his guru and the author of some commentary, might be the same as Bhadanta Nāgārjuna, regarded Narasiṃha's commentary as being inspired by the oral explanations of the text by its author.[446] This view need not be adopted, because Narasiṃha may have received the traditional interpretation of the sūtra after a lapse of time. Nāgavīrya may even have been one of his predecessors in writing a commentary on the *Rasavaiśeṣikasūtra*, the more so since Narasiṃha refers to divergent interpretations.[447]

Sankara Menon's conclusion that Narasiṃha, together with his teacher, led a secluded life in a vihāra in the Taluk of Shertalla, most probably at Tiruviḻai,[448] cannot be proved. Narasiṃha's adherence to the Buddhist faith was inferred by him from the absence of a maṅgalācaraṇa at the beginning of his commentary and from a single reference to the word vihāra (ad 1.1), which are rather weak grounds. Sankara Menon assigns Narasiṃha to the period A.D. 630–730,[449] when Buddhism was still flourishing in Kerala.[450] Until Narasiṃha's commentary has been subjected to thorough study, it can, however, only be asserted safely that he lived after Subandhu.[451]

Narasiṃha's commentary is quoted in Priyavrat Śarmā's auto-commentary on the *Dravyaguṇasūtra*.

The *Yogaśataka*, attributed to Nāgārjuna or Vararuci

The *Yogaśataka*, attributed to Nāgārjuna or Vararuci,[452,453] is an early example of a type of text to become current later, namely the type consisting of small collections of formulae of compound medicines (yoga), covering the eight divisions of āyurveda.

Contents

The *Yogaśataka* consists of a collection of verses in diverse metres,[454] giving about one hundred recipes[455] of compound medicines.[456] The total number of stanzas varies in the MSS and editions.[457]

The body of the work has twelve sections, as indicated by the colophons: (1) jvaracikitsā (3–8); (2) kāyacikitsā (9–46); (3) netracikitsā (47–54); (4) śālākyatantra (55–62); (5) śalyatantra (63–65); (6) viṣatantra (66–70); (7) bhūtavidyā (71–74); (8) bālatantra (75–77); (9) vājīkaraṇa and (10) rasāyana (78–83); (11) pañcakarman (84–88); (12) uttaratantra (89–92).

This list shows that jvaracikitsā has been detached from kāyacikitsā and netracikitsā from śālākyatantra as separate items, making a total of ten divisions as against the traditional eight, and that a section on pañcakarman has been added, as well as one called uttaratantra. This last section specifies what is the best medicine in each group of diseases. The first two verses are of an introductory nature. Appended to the main body are lines of a more general purport, describing causes of excitation of the doṣas (103–105) and of āma (106), the relations between the seasons and the doṣas (107), and general measures of counteracting excitation of the doṣas (108–109). The treatise ends with two concluding verses.

Works referring to or quoting the *Yogaśata(ka)* by name are: Anantakumāra's *Yogaratnasamuccaya*,[458] the *Bhesajjamañjūsāsannaya*, Harṣakīrti's *Yogacintāmaṇi*, Kalyāṇa's *Bālatantra*,[459] Karandīkar's *Nidānadīpikā*,[460] Mahimasamudra's *Vaidyakacintāmaṇi*, Mallinātha's commentary on the *Amarakoṣa*,[461] Meghamuni's *Meghavinoda*, Niścalakara's *Ratnaprabhā*,[462] Nidhi's *Yogasamuccaya*, Rāmacandra's *Rāmavinoda*, the *Rasoddhāratantra*, Trimalla's *Yogataraṅgiṇī* and *Bṛhadyogataraṅgiṇī*, and the *Yogaratnākara*.[463]

Vararuci is quoted in Anantakumāra's *Yogaratnasamuccaya*,[464] the *Bhesajjamañjūsāsannaya*, and Niścalakara's *Ratnaprabhā*.[465]

Later treatises that have incorporated verses from the *Yogaśataka*[466] are: *Bhaiṣajyaratnāvalī*, *Bhāvaprakāśa*, Cakrapāṇidatta's *Cikitsāsaṃgraha*,[467] Soḍhala's *Gadanigraha*, Ṭoḍara's *Āyurvedasaukhya*,[468] Vaṅgasena's *Cikitsāsārasaṃgraha*, Vṛnda's *Siddhayoga*, and the *Yogaratnākara*.

Translations

The *Yogaśataka*, once a popular work in India and popular in Sri Lanka until recent times, was also known in Tibet and Central Asia. Its popularity in Central Asia appears from the fragments of a bilingual MS from Kucā, containing the Sanskrit text of parts of the *Yogaśataka*[469] and their translation into Tocharian B.[470] The Tocharian version, which is not a literal one, has been expanded by adding explanations, though it follows

the Sanskrit text closely. The date of the MS cannot accurately be determined, but it may belong to the seventh century or a somewhat earlier period.[471]

The Tibetan translation of the *Yogaśataka* (*Sbyor-ba brgya-pa*) forms part of the Tanjur[472] as the first of the series of medical works included in this vast collection.[473] Its colophon states that the text and its commentary[474] were explained first by the mahāpaṇḍita, the brāhmaṇa Jetakarṇa[475] from Nepal, while the paṇḍita Buddhaśrījñāna[476] from Eastern India later explained the first part; it was finally brought into agreement with three commentaries, translated and edited by Śākyabhikṣu Dpal Ñi-ma rgyal-mćhan bzaṅ-po[477] (Śrī Sūryadhvajabhadra) at the request of the bhikṣu Amogha, who was well acquainted with the *Aṣṭāṅgahṛdayasaṃhitā*, in the temple Dpal-śer (Śrī Prajñā), situated near the temple Ḫphags-pa ḫjig-rten dbaṅ-po (Ārya Lokeśa) in Skyi-roṅ.[478] This colophon enables us to conclude that the Tibetan translation of the *Yogaśataka* was produced later than the Tibetan version of the *Aṣṭāṅgahṛdayasaṃhitā*, which dates from the period between A.D. 1013 and 1055,[479] and that it came about with the collaboration of the Buddhaśrījñāna who lived about A.D. 1200.[480] The Tibetan version of the *Yogaśataka* is not only found in the Tanjur, but also in the works of Bu-ston (A.D. 1299–1364),[481] accompanied by annotations (mćhan).[482]

Author and date

It is clear from the above account that the Tibetan translation is not of much value in dating the *Yogaśataka*. Much more valuable is the bilingual from Kucā,[483] placed by J. Filliozat in the seventh century or somewhat earlier, which shows that the *Yogaśataka* must have been composed before this period.[484]

Not much evidence is available on the sources of the *Yogaśataka*, except that it has verses in common with the *Carakasaṃhitā*.[485] The name of its last section, uttaratantra, points to a period of composition later than that of the Uttaratantra of the *Suśrutasaṃhitā*.

An important topic discussed in relation to the *Yogaśataka* and its date is whether or not it can be identified as a medical compendium referred to by the Chinese Buddhist pilgrim I-ching[486] at the end of the seventh century.[487] J. Filliozat[488] repeatedly expressed that this compendium cannot possibly be, as often claimed, the *Aṣṭāṅgasaṃgraha* or *Aṣṭāṅgahṛdayasaṃhitā*. The *Yogaśataka* was a more suitable candidate in his eyes, which would establish the date of the work. Later,[489] he expressed himself more cautiously in this matter. In this later period he was inclined to regard the Buddhist philosopher Nāgārjuna, who lived in the first or second century, as the author of medical treatises. He thought it to be not impossible to regard the *Yogaśataka* as a composition by this Nāgārjuna, though certainty could not be reached on this point.[490] This early date of the *Yogaśataka* made him face two problems: firstly, that I-ching describes a recently composed treatise, and, secondly, that I-ching fails to mention the author by name, though Nāgārjuna was well known to him. This made Filliozat finally declare that no valid assertions can be made about the identity of the medical treatise mentioned by I-ching. I subscribe to the view that the issue cannot be settled. I-ching's observations are much too vague to be of any use in fixing the date of the *Yogaśataka* or any

other work regarded as representing the epitome referred to.[491]

The attribution of the *Yogaśataka* to Nāgārjuna in Buddhist[492] and to Vararuci in Hindu tradition is not helpful for chronological purposes. The text involved is undoubtedly one and the same,[493] but forms only one of the many works traditionally ascribed to these famous authors. These traditions are unreliable and it proves to be impossible to determine with any certainty who were the various authors of all these works ascribed to Nāgārjuna[494] and Vararuci.[495]

Commentaries

Several commentaries are recorded on the *Yogaśataka* attributed to Nāgārjuna or Vararuci: (1) Amitaprabha's *Yogaśatabhāṣya*.[496] (2) Bu-ston's annotations (mćhan) on the Tibetan version; these annotations are based on (3) and (6).[497] (3) Dhruvapāla's[498] *Candrakalā*.[499] (4) Govardhana's *Karmamālā*.[500] (5) Hariharaśarman's *Vaidyavallabhā*.[501] (6) A commentary by Khyab-ḫjug-lha (Viṣṇudeva).[502] (7) Mahīdhara's *Viśvavallabhā*.[503] (8) A commentary by Mūlavara.[504] (9) A commentary by Rūpanayana.[505] (10) Samantabhadra's *Yogaśataṭīkā*.[506] (11) Sanātana's *Vallabhā*.[507] (12) Somadāsa's *Karmamālā*.[508] (13) Śrīpūrṇasasena's *Yogacintāmaṇi*,[509] also called *Abhidhānacintāmaṇi*.[510] Pūrṇasena commented on a longer version of the *Yogaśataka*.[511] His rather concise ṭīkā does not throw much light on the text of the *Yogaśataka*.[512] Sources are not mentioned; he refers, in the introductory part of his commentary, to the *Kalyāṇakāraka*, Suśruta and Vāgbhaṭa. Pūrṇasena may have been a resident of Mahārāṣṭra.[513] (14) A commentary by Sūryadeva.[514] (15) A commentary called *Bālāvabodha*.[515] (16) A vṛtti by Vaikuṇṭhavaidya.[516]

The following is known on their chronology: Rūpanayana is posterior to Ravigupta and Jejjaṭa, who are quoted by him, and earlier than about 1500;[517] Dhruvapāla, Govardhana,[518] Mahīdhara and Sanātana lived before Niścalakara, who quotes from their commentaries on the *Yogaśataka*;[519] Dhruvapāla and Khyab-ḫjug-lha are earlier than Bu-ston, whose annotations are based on their works;[520] Śrīpūrṇasena is said to belong to the sixteenth century.[521]

A number of works with the title *Yogaśataka* are recorded, some of which may ultimately prove to be identical with the *Yogaśataka* ascribed to Nāgārjuna or Vararuci. Their authors are: (1) Akṣadeva.[522] (2) Amṛtaprabha[523] or Amitaprabha; some verses of the *Cakradatta*, borrowed from Amitaprabha according to Niścalakara, form probably part of his *Yogaśataka*, which had verses in common with the *Yogaśataka* ascribed to Nāgārjuna or Vararuci.[524] (3) Anantayogīśvara; Nandalāla, pupil of Kalyāṇa, wrote a commentary on this work, called *Anvayacandrikā*.[525] (4) Devendrakīrti Bhaṭṭāraka.[526] (5) Haribhadrasūri.[527] (6) Lakṣmīdāsa.[528] (7) Madanasiṃha or Mathanasiṃha.[529] (8) Samantabhadra.[530] (9) Śrīkaṇṭhadāsa; Vararuci is said to have written a commentary, called *Abhidhānacintāmaṇi*, on this work.[531] (10) Vaidyanātha(putra).[532] (11) Vāmana.[533] (12) Vidagdhavaidya.[534] A *Vṛddhayogaśata* by Gauḍavaṃśatilaka,[535] Pūrṇasena,[536] and Pūrṇasetūttamasūri[537] are also known, as well as an anonymous *Yogaśatābhidhāna*.[538]

The *Tantrayuktivicāra* by Nīlamegha Bhiṣaj

The *Tantrayuktivicāra* by Nīlamegha Bhiṣaj[539] is a short treatise,[540] which consists of thirty-six ślokas, accompanied by a rather extensive auto-commentary. It defines, in the same order, the thirty-six tantrayuktis which are found at the end of the *Carakasaṃhitā* (Si.12.41–45ab)[541] and the *Aṣṭāṅgasaṃgraha* (U.50.148–153). Only one item has been added to the series (aviparyaya, after viparyaya), without affecting the number of yuktis and verses as given in the text.

The tantrayuktis[542] are technical terms for the procedures which are necessary in order to arrive at a correct understanding and interpretation of scientific treatises. Vāgbhaṭa describes their function in the following way: "The tantrayuktis are like the rays of the sun on a pond with lotuses whose flowers are closed, and like the light of a lamp in a dark house. A person who studies the textbooks without being familiar with the tantrayuktis fails to grasp the meaning of what he reads, just as one fails to acquire wealth when one's good fortune declines. By establishing the meaning of sentences, the tantrayuktis provide one with the desired success (in debates), enabling one to refute the propositions of those holding erroneous views. They reveal the meaning of utterances when these are hidden, interchanged, hinted at or indirectly expressed, and are said to be the essence of the ocean of the rules of speech" (A.s.U.50.154–157).

The tantrayuktis are only enumerated, not defined, in the *Carakasaṃhitā* and the *Aṣṭāṅgasaṃgraha*. Definitions and elucidations are supplied in the commentaries of Cakrapāṇidatta and Gaṅgādhara on the *Carakasaṃhitā*, Indu's commentary on the *Aṣṭāṅgasaṃgraha*, and, above all, in Aruṇadatta's commentary on the *Aṣṭāṅgahṛdaya*.[543] A list of thirty-two tantrayuktis, accompanied by explanations and illustrations, and commented on by Ḍalhaṇa, is found at the end of the *Suśrutasaṃhitā* (U.65). Another list, resembling that of the *Suśrutasaṃhitā*, and also consisting of thirty-two items, occurs at the end of the *Kauṭilīya Arthaśāstra* (adhikaraṇa 15).[544] A list of thirty-two tantrayuktis, almost in the same order as in the *Suśrutasaṃhitā*, is found in the *Viṣṇudharmottarapurāṇa*.[545]

The definitions of the tantrayuktis in the work of Nīlamegha Bhiṣaj seem to be his own, or are those as expounded by his guru Sundara;[546] in the latter case he only wrote the commentary.

The authoritative works quoted in his commentary are in the first place the *Aṣṭāṅgasaṃgraha* and *Aṣṭāṅgahṛdayasaṃhitā*, while the *Caraka-* and *Suśrutasaṃhitā* rank second; Bhela, *Gopālikā*, tāntrikāḥ, and Parāśara are quoted once only.[547]

In the beginning and at the end the author mentions his name, Nīlamegha Bhiṣaj, and his second name, Vaidyanātha. The title of the work is given only at the end.

The treatise opens with salutations to Vāhaṭa: "May the physician Rāmagupta, who received his discernment from Avalokiteśvara,[548] who is famous in this world under the name of Vāhaṭa, the moon of Sindhu from the lineage of Saṅghagupta,[549] be present before our eyes". The second verse refers to Indu and Jajjaṭa as pupils of Vāhaṭa. The third verse proclaims the author's reverence for Ātreya and the other great sages, for the guru Āryāvalokita,[550] Āryatārā,[551] Śrīsaṅghagupta, Vāhaṭarāmagupta, and the ācārya Sundara, while the fourth verse extols the excellence of the *Aṣṭāṅgasaṃgraha*. After quoting the *Aṣṭāṅgasaṃgraha* (U.50.155, 150–153, 157), Nīlamegha makes it explicit that he composed his work according to the teaching of his guru Sundara.

The author

According to Kolatteri Śaṅkaramenon, this guru Sundara may be Sundarabhaṭṭācārya, the author of a work on toxicology, called *Lakṣaṇāmṛta*.[552] Kolatteri Śaṅkaramenon is of the opinion that both Sundara and Nīlamegha[553] hail from Kerala,[554] which is very probable indeed, because the only MS of Nīlamegha's treatise belongs to a member of one of the aṣṭavaidya families of Kerala, who adhere to Vāgbhaṭa's teachings, as Nīlamegha did himself.

Date

Kolatteri Śaṅkaramenon places Nīlamegha in the first half of the ninth century,[555] the period in which Śaṅkārācarya lived,[556] because Buddhist influences are still traceable in Nīlamegha's composition. He is convinced that Nīlamegha knew only the *Aṣṭāṅgasaṃgraha*, which he assigns to the first quarter of the eighth century, and not yet the *Aṣṭāṅgahṛdayasaṃhitā*, which he regards as having been composed by a grandson or great-grandson of the author of the *Aṣṭāṅgasaṃgraha*.[557] Kolatteri Śaṅkaramenon's views on the dates of the *Aṣṭāṅgasaṃgraha* and *Aṣṭāṅgahṛdayasaṃhitā* can be discarded. He is wrong in asserting that Nīlamegha did not yet know the *Aṣṭāṅgahṛdayasaṃhitā* because the latter work is profusely quoted in his auto-commentary, also when not identical with the *Aṣṭāṅgasaṃgraha*.[558] Nīlamegha's references to Indu and Jejjaṭa as pupils of Vāgbhaṭa imply that he lived later than these commentators and cannot be earlier than about A.D. 700. The Buddhist influences point to a date not much posterior to A.D. 800.

The *Kumāratantra* ascribed to Rāvaṇa

The *Kumāratantra*,[559] ascribed to Rāvaṇa, is a work on a particular class of demons afflicting children, and their appeasement.[560]

Contents

This short treatise, written in a mixture of verse and prose, describes twelve demons, called mātṛkā, who attack children on the first day after birth and in the first month or year of their lives, on the second day and in the second month or year, etc., up to the twelfth day, month, or year.[561]

Their names are Nandanā, Sunandā, Pūtanā, Mukhamuṇḍikā, Kaṭapūtanā, Śakunikā, Śuṣkarevatī, Aryakā, Bhūsūtikā, Nirṛtā, Pilipicchikā, and Kāmukā. The symptoms of children who are seized by these demons are enumerated, followed by magico-religious procedures destined to appease them and usually consisting of fumigations, bali offerings, the presentation of food to brāhmaṇas, etc. Each of the twelve sections of the text ends with a mantra in which Rāvaṇa is invoked.[562]

The complete text of Rāvaṇa's *Kumāratantra* was, indicated as such, incorporated by Cakrapāṇidatta in his *Cikitsāsaṃgraha* (bālarogacikitsā 89–100)[563] and commented

upon by Niścalakara and Śivadāsasena; it also forms part of Gaṅgādhara's commentary on the *Carakasaṃhitā* (ad Ca.Śā.8.65), Govindadāsa's *Bhaiṣajyaratnāvalī* (bālaroga 181–193),[564] Ṭoḍara's *Āyurvedasaukhya*,[565] and Vaidyarāja's *Sukhabodha*.[566] The *Amṛtasāgara*, attributed to Pratāpasiṃha, claims to reproduce the *Kumāratantra*, as found in the *Cakradatta*, but mentions a series of twelve mātṛkās with partly different names.[567] A related text is found in Anantakumāra's *Yogaratnasamuccaya* (22.1–2),[568] where Parāśara proclaims the *Kumāratantra* by Rāvaṇa, called *Nārāyaṇīya Bālatantra* in the colophon; the mantras, which are less in number, invoke Nārāyaṇa and Vāsudeva instead of Rāvaṇa. Trimalla's *Yogataraṅgiṇī* contains an extract from Rāvaṇa's *Kumāratantra*.[569] Trimalla's *Bṛhadyogataraṅgiṇī* presents a related text, called the pūtanāvidhāna from the *Kaumāratantra* by Rāvaṇa;[570] the mantras of this work invoke Rāvaṇa and Nārāyaṇa for protection. The *Nighaṇṭuratnākara* and *Bṛhannighaṇṭuratnākara* mention, at the end of their sections on children's diseases, two series of grahīs, together with the symptoms they provoke and the treatment of these afflictions.[571] An unpublished Jain text, called *Vidyānuśāsana*,[572] contains a long section on bālagrahas that is said to derive from Rāvaṇa.[573]

The *Uḍḍīśatantra*, sometimes ascribed to Rāvaṇa, has a chapter (16), called grastabālacikitsā, which deals with the same subject as Rāvaṇa's *Kumāratantra*.[574] The same applies to a chapter (pūrvārdha 41), entitled *Bālacikitsā*, of the *Īśāna(śiva)gurudevapaddhati*,[575] and to a chapter (11) of Nārāyaṇa's *Tantrasārasaṃgraha*.[576] The latter work describes three series of grahīs, who attack the child on the first to tenth day,[577] in the first to twelfth month,[578] and in the second to seventeenth year.[579] Three related series of names occur in a chapter (299), entitled bālagrahaharabālatantra, of the *Agnipurāṇa*,[580] and in Anantakumāra's *Yogaratnasamuccaya*.[581] Elaborate descriptions of many demons preying upon children are found in Kalyāṇa's *Bālatantra*. Śālinātha's *Rasamañjarī* contains a *Bālatantra* that is related to Rāvaṇa's *Kumāratantra*.

An illustrated, but fragmentary, Nepalese MS of a text that resembles the *Kumāratantra* of Rāvaṇa and was probably entitled *Dvādaśagrahaśānti*,[582] was edited and translated by P.C. Bagchi.[583] This work partially agrees with Rāvaṇa's *Kumāratantra*, but shows a closer affinity with a *Rāvaṇatantra* preserved in the Chinese Tripiṭaka.[584] In the latter work the diseases caused by the grahamātṛkās are somewhat more distinctive and the mantras are different in each case. The Sanskrit names of the twelve mātṛkās of the Chinese text are Mātṛnandā, Sunandā, Revatī, Mukhamaṇḍikā, Biḍālī, Śakunī, Pūtanā, Śuṣkā, Āryakā, Jambhakā,[585] Pilipicchikā, and Skandā.[586]

Demons called mātṛkā and similar beings who lurk upon children are mentioned in several more texts.[587] A series of sixteen of these, threatening children from the first to the sixteenth day after birth and called Jātahāriṇī, is described in the *Kāśyapasaṃhitā*.[588] Their names are Piśācī, Yakṣī, Āsurī, Kali, Vāruṇī, Ṣaṣṭhī, Bhīrukā, Yāmyā, Mātaṅgī, Bhadrakālī, Raudrī, Vardhikā, Caṇḍikā, Kapālamālinī, Revatī, and Pilipicchikā. The *Hārītasaṃhitā*[589] has recorded two series of these beings, called Pūtanā. The first consists of Lohitā, Revatī, Dhvāṅkṣī (or Vāyasī), Kumārī, Śākunī, Śivā, Ūrdhvakeśī, and Senā, who attack a child on the first to eighth day, while the names belonging to the second series are Rohiṇī, Vijayā, Kālī, Kṛttikā, Ḍākinī, Niśā, Bhūtakeśī, and Kṛśāṅgī.

A Tamil text that can be regarded as a parallel of the *Kumāratantra* was edited, translated and studied by J. Filliozat.[590]

Buddhist literature is acquainted with Hārītī as a deity devouring children.[591]

Rāvaṇa's *Kumāratantra* is, apart from the texts already mentioned, quoted or referred to in Ambikādattaśāstrin's commentary on the *Rasendrasārasaṃgraha*, Cakrapāṇidatta's *Bhānumatī*,[592] Ḍalhaṇa's *Nibandhasaṃgraha*,[593] Gaṅgādhara's commentary on the *Carakasaṃhitā*,[594] Gayadāsa's commentary on the *Suśrutasaṃhitā*,[595] Jagannātha's *Yogasaṃgraha*,[596] and Nīlakaṇṭha's *Śāntimayūkha*.[597]

An unknown work by Rāvaṇa is quoted by Kāśīrāma.[598]

Khare's commentary on the *Rasaratnasamuccaya* quotes Rāvaṇa on subjects belonging to alchemy.[599] Laṅkeśa, i.e., Rāvaṇa, is mentioned as one of the Rasasiddhas in the *Pāradasaṃhitā* (1.96), *Rasajalanidhi* (III, 389–390), *Rasaratnasamuccaya* (1.2),[600] *Rasataraṅgiṇī* (1.29–32), and *Rasendrasambhava* (introductory verses).

The *Bhaiṣajyaratnāvalī* contains a recipe proclaimed to Rāvaṇa by Devadeva.[601] G. Hāldār mentions a formula (pūrṇacandrarasa) made by Śaṃkara for the benefit of Rāvaṇa.[602]

The Bombay edition of the *Kumāratantra* adds, after the twelve sections on the mātṛkās, 189 verses on children's diseases and their treatment.[603]

Other works going under the name of Rāvaṇa are:[604]

1 A *Rāvaṇakaumāratantra* in prose, of Buddhist inspiration, not identical with the published texts.[605]
2 A *Bālatantra* ascribed to Rāvaṇa.[606]
3 A *Bālatantra* ascribed to Daśagrīva.[607] This work resembles the *Kumāratantra* in its general outline, but differs considerably in its details.[608]
4 A *Bālacikitsā* according to Rāvaṇa.[609]
5 A *Nāḍīparīkṣā* ascribed to Rāvaṇa.[610]
6 An *Arkaprakāśa* attributed to Rāvaṇa.[611]
7 An *Arkaprakāśa* or *Arkacikitsā* by Laṅkānātha or Laṅkeśvara.[612]
8 A *Nibandhasaṃgraha* ascribed to Laṅkānātha.[613]
9 A *Prākṛtakāmadhenu* attributed to Laṅkeśvara.[614]
10 A *Śivastuti* attributed to Laṅkeśvara.[615]
11 A *Kālāgnirudropaniṣad* ascribed to Laṅkeśvara.[616]
12 A *Ṛgvedabhāṣya*.[617]
13 A *Śrīsūktabhāṣya*.[618]
14 *Dīnākrandana* by Rāvaṇa,[619] also called *Dīnākrandanastotra* by Laṅkeśvara.[620]
15 The *Vaiśeṣikakaṭandī*, an old bhāṣya on the *Vaiśeṣikasūtras*.[621]
16 The *Uḍḍīśatantra*[622] and the *Indrajāla Uḍḍīśa*.[623]
17 The *Laṅkeśasiddhānta*.[624]

A *Bālagrahārogyaśānti* according to Rāvaṇa's *Kumāratantra* is also recorded.[625]

A *Kaumāratantra* by Pārvatī is mentioned in some MSS of Vaṅgasena.[626]

The author
The attribution to Rāvaṇa[627] of a treatise that deals with rituals aiming at the propitiation of demonic beings, whereas Rāvaṇa himself is a rākṣasa with demonic aspects, has been discussed by J. Filliozat, who traced his development into a benevolent being and the reputed author of medical treatises.[628] A famous Buddhist text, the *Laṅkāvatārasūtra*, describes him as a pious king who gives a warm reception to the Buddha.[629] The Uttarakāṇḍa of Vālmīki's *Rāmāyaṇa* contains passages which extol Rāvaṇa,[630] a trend which assumes a more pronounced character in later versions of the *Rāmāyaṇa*, for example those composed by Jain authors;[631] the same phenomenon is visible in Tamil̲ literature.[632]

J. Filliozat concluded that Rāvaṇa is one of the numerous ambivalent beings in Indian mythology, to be compared with Rudra. P.C. Bagchi noticed that, in the *Mahāmāyūrī*, Rāvaṇa is also the name of the yakṣa who protects Rāmaṭha, while Kāpiśī is protected by another yakṣa called Laṅkeśvara.[633] T. Goudriaan describes Rāvaṇa as an ambivalent god of diseases and magical protection who may be compared to Skanda and Tumburu.[634] In the twentieth century, Rāvaṇa is being raised to the status of an admirable Dravidian hero by many Tamil̲s.[635]

Date
The *Kumāratantra* is at least older than the eleventh century, since *Cakrapāṇidatta* was aquainted with it, and probably earlier than the tenth century, because a similar text was translated into Chinese by Dharmadeva who went to China in the year 937.

The *Siddhasāra* by Ravigupta

The *Siddhasāra* by Ravigupta[636] is the earliest medical treatise of a new type, in which the material on nidāna and cikitsā, together with that on some more general subjects, has been arranged in a more or less systematic way.

Contents
The *Siddhasāra* counts 2,634 lines, which agrees with the author's own statement about the extent of his work (31.37). Each of its thirty-one chapters deals with a different topic or cluster of topics. It is in verse, except for one mantra, and has entirely been composed, not compiled, by Ravigupta, which is highly remarkable, though some lines are so close to verses found in the early saṃhitās that it is hard to believe that they are independent.[637] Ravigupta mentions (31.37) as his sources Dhanvantari, i.e., the *Suśrutasaṃhitā*, and the son of Atri, i.e, the *Carakasaṃhitā*, but Vāgbhaṭa is conspicuously absent.

The first four chapters deal with general subjects: (1) tantra (describing the eight aṅgas of āyurveda), types of diseases, the qualities of the doṣas, the tastes, types of country, the constitutions, etc.; (2) dravyaguṇa, enumerating the groups of drugs and their actions;[638] (3) annapānavidhi, listing medicinal properties of foods and drinks; (4) ariṣṭa, describing prognostic signs. Chapters five to twenty-three enter into those subjects which mainly belong to the realm of kāyacikitsā, though bhagandara and upadaṃśa, usually regarded as forming part of śalya, are discussed in chapters belonging to this section.[639] Chapters twenty-four and twenty-five are concerned with śalya, twenty-six is about śālākya, twenty-seven about viṣa(tantra), twenty-eight about rasāyana and vājīkaraṇa, and twenty-nine about kaumārabhṛtya; bhūtavidya is represented by chapter twenty, concerned with unmāda and apasmāra. Chapter thirty deals with pañcakarman, and chapter thirty-one with kalpa (rasona-, bhallātaka-, and other kalpas).

Therapy is the predominant concern of the *Siddhasāra*, and only a few lines of each chapter are devoted to nidāna. Ravigupta's teachings are embedded in the main current of the āyurvedic tradition and consequently relatively free from divergent features.

Later authors made ample use of the *Siddhasāra*.[640]

Ravigupta and the *Siddhasāra* are quoted by name by numerous medical authors: Āḍhamalla,[641] Ananta,[642] Aruṇadatta,[643] Bhāradvāja,[644] Candranandana,[645] Candraṭa,[646] Gopāladāsa, Jīvānandavidyāsāgara,[647] Lakṣmīrāma,[648] Niścalakara,[649] Rūpanyana,[650] Śivadāsasena,[651] Soḍhala,[652] Śrīkaṇṭhadatta,[653] Ṭoḍara,[654] and Viṣṇudeva.[655] The *Siddhasāra* is moreover quoted in the *Bāhaṭagrantha*[656] and in the interpolated portion, written by an unknown author, of Niścalakara's *Ratnaprabhā*. It is mentioned as a source in the *Ratnākarauṣadhayogagrantha*.[657] It is referred to in the anonymous *Vaidyaśāstrapravartakācāryanāmasamuccaya*. The widespread fame acquired by Ravigupta's work is shown by quotations from it in al-Rāzī's *Kitāb al-Ḥāwī*.[658]

Niścalakara indicates in his *Ratnaprabhā* which verses of Cakrapāṇidatta's *Cikitsāsaṃgraha* were borrowed from Ravi(gupta) and his *Siddhasāra*.[659]

Special features
Pitta is said to be located in the pakvāśaya (1.17–18).

The order of the diseases does not conform to that found in the early saṃhitās and seems to be peculiar to Ravigupta; it was ignored by later authors. A series of disorders and their therapy, specified in the early saṃhitās, are not described in the *Siddhasāra*, such as ajīrṇa, arocaka, kṣatakṣīṇa, the kṣudrarogas, bhagna, mūtrāghāta, mūrchā, vidradhi, visūcikā, śūkaroga, śūla, and svarabheda.[660]

The author
Ravigupta mentions, in the beginning and at the end of his treatise, his own name and that of his father, Durgagupta, who was an aśvavaidya from the West. He adds that he wrote the work on the insistence of his elder brother, Devagupta, who suffered from an illness, called pāṇḍunāga.[661]

Date
Clues to the date of the *Siddhasāra* are provided by its translations into Tibetan,[662] Khotanese,[663] and Uighur,[664] which testify to its popularity.[665] As the Khotanese translator was aquainted with the Tibetan version,[666] the date of the latter, made in the early ninth century, gives us a provisional terminus ante quem.

The ample use made of the *Siddhasāra* by later authors helps to bring down this provisional limit, since several verses were incorporated in the *Mādhavanidāna*[667] and

Mādhavacikitsā, which date from the eighth century.

The terminus post quem is more difficult to establish, but the date suggested by R.E. Emmerick, ca. A.D. 650,[668] is acceptable and accounts for the fact that Vāgbhaṭa, who lived about A.D. 600, is not mentioned as a source by Ravigupta.[669]

The *Siddhasāranighaṇṭu*

The *Siddhasāra* is followed by the *Siddhasāranighaṇṭu*,[670] which is known in two versions, one in verse[671] and the other in the form of a list;[672] both give synonyms of the vegetable and inorganic substances prescribed in the *Siddhasāra*. The versified nighaṇṭu and the list seem to have influenced each other.[673]

The *Siddhasāranighaṇṭu* conforms to the old type of nighaṇṭu in giving only synonyms, and not adding the properties and actions of the medicinal substances as in nighaṇṭus of the later type.[674] It is a work of great importance, since it may be the earliest nighaṇṭu we possess and the only one appended to a rather early medical text.[675] The nighaṇṭu, though essential for a correct understanding of the *Siddhasāra*, has, to their disadvantage, not always been utilized by the translators.[676]

Interesting is the occurrence of the word tulasī (105) in this early work, since this term was regarded as appearing for the first time in the *Paryāyaratnamālā*.[677]

Interesting and rare synonyms are: jhaṣā = nāgabalā (7);[678] kākolī = nākulī (27); kaṇṭakā = mahāśyāmā = vṛkṣabhāryā (123);[679] kavuka = khapura (99);[680] kulajā = surasī (109);[681] laṅgaka = tripuṭa (180);[682] muruṅgī = vāyasī (147);[683] śaṅkhinī = tiktavīryā = akṣipīluka (126);[684] saptigandhā = aśvagandhikā (137);[685] śaśvatkṣīrī = nandivṛkṣa (18);[686] śvetaka = dhava (95);[687] vasuvahā = rāsnā (28);[688] yavatiktā = saptalā (125).[689]

Date

The date of the *Siddhasāranighaṇṭu* is difficult to determine.[690] It may have been composed some time after the *Siddhasāra* itself. A terminus ante quem would be established if P.V. Sharma were right in claiming that Vṛnda (about A.D. 900) and Candraṭa (tenth century) have borrowed from it,[691] but this assertion has not been substantiated.

Some medical treatises with titles containing the word Siddhasāra are recorded in MSS catalogues, but these texts have nothing in common with Ravigupta's work. These treatises are: the *Siddhasāratantra* by Niśācarabhaṭṭācārya,[692] the *Siddhasārasaṃgraha*,[693] and the *Siddhasārasaṃhitā*.[694]

Tīsaṭa

Tīsaṭa[695] was the author of the *Cikitsākalikā*,[696] a short medical treatise,[697] composed in about 400 skillful verses[698] of diverse metres.[699]

Contents

The *Cikitsākalikā* can conveniently be divided into two unequal parts, the first (3–94) dealing with basic principles of medicine and general aspects of treatment, the second

(99–399) being about the therapy of various diseases.

The work opens with two introductory verses, the first of which is in praise of Sūrya, the Aśvins, Dhanvantari, Suśruta, and Tīsaṭa's father, while the second refers to Hārīta, Suśruta, Parāśara, Bhoja, Bhela, Bhṛgu, Agniveśa, and Caraka as sources of the *Cikitsākalikā*.

Authorities mentioned in the body of he work are: Āstīka (387), the Aśvins (227; 306), Bhela (248), Bhṛguja (i.e., Śukra; 375), Caraka (41; 162; 302; 345), Janakātmaja (i.e., Videha; 347), Kāṅkāyana (147; 151), Parāśara (302), Pracetas (i.e., Varuṇa; 383), Suśruta (145),[700] and Videha (230; 304). The name of Vāgbhaṭa is conspicuously absent.

Candraṭa's commentary on the *Cikitsākalikā* also discloses some sources: Caraka (161–162), Hārīta (212–215), and Kṣārapāṇi (208–211). P.V. Sharma is of the opinion that Vṛnda's *Siddhayoga* may also have been put to use by Tīsaṭa.[701]

Verses 4–16 are about the components of the human body. Verses 17–40 deal with the tridoṣa doctrine and contain the famous verses, often quoted by later authors,[702] on the causes of excitement of each of the three doṣas and the symptoms of this excitement. Verses 48–65 enumerate eighteen groups (gaṇa) of drugs and their actions, while 68–85 are concerned with sneha, sveda, and pañcakarman. Verses 87–94 are about general measures of treatment. Verses 95–97 give a list of diseases belonging to the division of kāyacikitsā; verse 98 lists the seven remaining aṅgas of āyurveda.

The remaining part of the work is devoted to therapy. It is divided into sections[703] on kāyacikitsā (99–325), śālākyatantra (326–352), śalyatantra (353–364), bhūtavidyā (365–377), kaumāratantra (378–380), viṣatantra (381–389), rasāyana (390–394), and vājīkaraṇatantra (395–399). Tīsaṭa's arrangement of the diseases in the section on kāyacikitsā has no parallel in other treatises.

Authors and works quoting from or referring to Tīsaṭa or his *Cikitsākalikā* are: Āḍhamalla,[704] Anantakumāra,[705] the *Āyurvedābdhisāra* and its commentary, Bhāvamiśra in his *Bhāvaprakāśa*,[706] the *Bhesajjamañjūsāsannaya*, Candraṭa in his commentary on the *Cikitsākalikā* and in his *Yogaratnasamuccaya*, Gopāladāsa, Gulrājśarmamiśra in his *Viśikhānupraveśavijṇāna*, Hariprapanna in his *Rasayogasāgara*, Hemādri,[707] Karandīkar in his *Nidānadīpikā*,[708] Kāśīrāma,[709] Khare in his commentary on the *Rasaratnasamuccaya*, Niścalakara,[710] Priyavrat Śarmā in his auto-commentary on the *Dravyaguṇasūtra*, Śivadāsasena,[711] Soḍhala,[712] Ṭoḍara,[713] Trimalla in his *Yogataraṅgiṇī*[714] and *Bṛhadyogataraṅgiṇī*,[715] Vijayarakṣita in the *Madhukośa*,[716] the *Vīrasiṃhāvaloka*,[717] the *Yogaratnākara*,[718] and Yogendranātha in the *Āyurvijñānaratnākara*.[719] Harṣakīrti, Jayaratna, and Māgacandradeva mention the *(Cikitsā)kalikā* as one of their sources.

A valuable commentary on the *Cikitsākalikā* was written by Tīsaṭa's son, Candraṭa.[720]

Special features

Tīsaṭa gives a list of diseases to be ascribed to bad acts committed in previous lives (10–12).[721] The three chief vulnerable parts (marman) are said to be the cardiac, ano-rectal and umbilical regions (25).[722] The number of eighteen groups of drugs (48–65) is pecu-

liar to Tīsaṭa's work. The first six of them are said to subdue vāta, pitta, kapha, vātapitta, vātakapha, and pittakapha, the eleventh group (elādi) consists of drugs against poison (viṣa), kapha, and vāta. The remaining gaṇas, apart from the fifteenth (varuṇakādi), to be prescribed against a variety of diseases, are well-known smaller groups: triphalā, trikaṭuka, pañcakola, pañcavalkala, aṣṭavarga, trisugandhin, caturjātaka, mahat- and laghupañcamūla, and finally daśamūla. The elādi- and varuṇakādigaṇas may have been borrowed from the *Suśrutasaṃhitā* (Sū.38.24–25 and 10–11), as well as the two pañcamūla groups and the daśamūla group (Sū.38.66–71).[723] Some other gaṇas, namely triphalā, trikaṭuka, pañcakola, trijātaka and caturjātaka, may have been inspired by Vāgbhaṭa (A.h.Sū.6.159–166) according to P.V. Sharma,[724] although this author is not referred to as a source by Tīsaṭa[725] and clear resemblances cannot be detected.[726] Some recipes differ from those in earlier works[727] or are based on a compromise after the consultation of various sources.[728] Verses 309–325, on prakīrṇauṣadhāni, contain a list of remedies which are particularly helpful in certain disorders.[729] [730]

The author

Nothing is known with certainty about Tīsaṭa, except that he was the father of Candraṭa, who wrote a commentary on the *Cikitsākalikā*, and, as is evident from the first verse of the *Kalikā* and Candraṭa's comment on it, that he was the son of a physician whose name is not disclosed. The colophons of a number of MSS call Tīsaṭa the son of Vāgbhaṭa.[731] Tīsaṭa's name may indicate that he was born in Kaśmīr.[732]

Candraṭa explains in his commentary that Sūrya, who is praised in the first verse of the *Cikitsākalikā*, was Tīsaṭa's family deity, which makes clear that Tīsaṭa, just like Ḍalhaṇa, was a brāhmaṇa of the Saura tradition.[733]

G. Hāldār supposes that Tīsaṭa was also the author of a work called *Vaidyatriṃśat*.[734]

Date

Tīsaṭa's sources are of no avail in establishing his date, in spite of the statement by Jolly that the occurrence of Bhoja's name in the list of verse two may point to the eleventh century as the terminus post quem for the composition of his work.[735] It is quite uncertain who this Bhoja was and when he lived. The colophons of the MSS that call Tīsaṭa the son of Vāgbhaṭa are not helpful either, firstly, because these colophons may date from a later age, secondly, because of the absence of the name of Tīsaṭa's father in the text of the *Cikitsākalikā* and its commentary,[736] and, thirdly, since no information is available on the identity of this Vāgbhaṭa. P.V. Sharma's claim that Tīsaṭa made use of the works of Vāgbhaṭa[737] is in need of corroboration; his view that Tīsaṭa probably borrowed from Vṛnda's *Siddhayoga*[738] has no firm basis, since the formulae referred to are not closely similar in wording.[739] The fact that the arrangement of the diseases in the *Cikitsākalikā* is free from influences from the side of Mādhava's *Rugviniścaya* cannot be used as evidence for a very early date, since many works composed after the eighth century disregard Mādhava's scheme. Nevertheless it is worthy of notice that the new diseases introduced by Mādhava and Vṛnda are absent from Tīsaṭa's work.[740]

The chronological position of the *Cikitsākalikā* can be deduced only from

Candraṭa's commentary. The earliest author, apart from Candraṭa, who is known to have utilized Tīsaṭa's work is Cakrapāṇidatta.[741]

The evidence available points to the tenth century as the age in which Tīsaṭa must have lived.[742]

The *Kalyāṇakāraka* by Ugrāditya

The *Kalyāṇakāraka* by Ugrāditya[743] is a comprehensive medical treatise by a Jain author. Other medical works ascribed to him are the *Bhiṣakprakāśa*,[744] *Jagatsundarī*,[745] *Kanakadīpaka*,[746] and *Rāmavinoda*.[747]

Contents

The work consists of about 8,000 verses[748] and some prose,[749] arranged in twenty-five chapters (pariccheda) and two additional ones. It is also divided into two systems of adhikāras, long and short ones. Chapters one to six constitute the svāsthyarakṣaṇādhikāra, seven to twenty the cikitsādhikāra, and twenty-one to twenty-five the uttaracikitsādhikāra, uttaratantra or uttaratantrādhikāra. Many chapters are subdivided into short adhikāras devoted to a single disease or to a group of diseases.[750]

The first seven chapters discuss general subjects. After a maṅgala addressed to the first Tīrthaṅkara, Ṛṣabha,[751] the book opens with the Jain version of the descent (avatāra) of āyurveda (1.2–10): the medical science was revealed by Ādinātha (= Ṛṣabha), with the goddess Sarasvatī[752] as an intermediary, to the first cakravartin,[753] Bharata,[754] and others, when mankind became oppressed by disease in the present avasarpiṇī;[755] subsequently, every Tīrthaṅkara[756] proclaimed this science, until it was acquired by the gaṇadharas,[757] śrutakevalins[758] and other holy men, who transmitted it to their pupils.

Chapter one also deals, amongst other things, with prognostics (30–47). Chapter two is concerned with embryology (41–58), three with anatomy (2–12), the constitutions (17–27) and the doṣas (47–68), four with time and the seasons (2–15), grains and pulse (20–26), vegetables and fruits (27–46), five with liquid foods (3–34), urines (35–37) and anupāna (38–42), six with dinacaryā and rātricaryā (1–25), vājīkaraṇa (30–40) and rasāyana (41–67), seven with general subjects relating to therapy.

The section on nidāna and cikitsita covers chapters eight to nineteen. The arrangement of the diseases is peculiar to this text. Chapter eight is concerned with vātaroga, including ūrustambha and vātarakta. Chapter nine is about pittaroga, i.e., raktapitta, asṛgdara, visarpa, vātarakta again (only its therapy), jvara, and atisāra. Chapter ten deals with kapharoga, without mentioning specific diseases. Chapters eleven to twelve discuss mahāmaya, the major diseases, which consist of prameha, the pramehapiṭakāḥ, sadyovraṇa, kuṣṭha, udara (chapter eleven), vātaroga again (therapy only), mūḍhagarbha and various disorders of pregnancy, bālagraha, and arśas (chapter twelve). Chapters thirteen to eighteen cover what is called kṣudraroga, the minor diseases, in the *Kalyāṇakāraka*, which consist of a very large group of disorders, namely śarkarā, aśmarī, bhagandara, vṛddhi (chapter thirteen), vidradhi, granthi, upadaṃśa, śūkadoṣa, ślīpada, apacī, nāḍīvraṇa, galagaṇḍa, arbuda, śopha, and the group of kṣudrarogas in the stricter sense of the term (chapter fourteen), the diseases

belonging to the division of śālākya, i.e., śiro-, karṇa-, nāsā-, mukha-, and netraroga (chapter fifteen), śvāsa, kāsa, virasaroga, tṛṣṇā, chardi, arocaka, svarabheda, udāvarta, hikkā, and pratiśyāya (chapter sixteen), hṛdroga, krimiroga, ajīrṇa, mūtrāghāta, mūtrakṛcchra, yoniroga, gulma, pāṇḍuroga, mūrchā, unmāda, and apasmāra (chapter seventeen), śoṣa (= kṣayaroga), masūrikā and visphoṭa, bālagraha again, and finally graha (chapter eighteen). Chapter nineteen is about viṣa.[759]

Chapter twenty deals with many subjects, e.g., the sixty therapeutical procedures (4–7), the ten ways of taking a drug (18–21), the combinations of tastes (28), prognostics (30–47), and the marmans (49–83). Chapter twenty-one is concerned with caustics (kṣāra; 9–17), cautery (agnikarman; 18–30), bloodletting by means of leeches and allied topics (33–51), and surgery (52–65). Chapter twenty-two deals with pañcakarman, disorders resulting from improper treatment, and the therapy of these disorders. Chapter twenty-three is about uttarabasti, śukra- and ārtavadoṣa, the care for pregnant women, obstetrics, dhūmapāna, gaṇḍūṣa, kavala and nasya, śotha, and the treatment of palita. Chapter twenty-four discusses the processing of mercury and mercurial preparations. Chapter twenty-five deals with a series of kalpas.

The first additional chapter (pariśiṣṭādhyāya) describes prognostic signs; the second (hitāhitādhyāya) is a long discourse in prose in defense of a vegetarian diet, delivered by Ugrāditya at the court of Nṛpatuṅgavallabha.[760]

Some subjects are discussed twice, such as sveda (8.31–32 and 22.21–29), vamana (8.33–37 and 22.33–41), and nasya (8.68–72 and 23.57–76). Prognostics (ariṣṭa) is a topic discussed in various chapters (1.30–47; 20.30–47; pariśiṣṭādhyāya). Surgery has a rather important place in this treatise: 11.51–53, the bandaging of wounds; 12.101–111, the surgical treatment of arśas, i.e., haemorrhoids; 13.53–58, the treatment of bhagandara, i.e., ano-rectal fistulas; 14.30–31, the eight surgical procedures; 15.244–249 and 274–283, treatment of eye diseases, couching of cataract; 20.49–83, descriptions of the marmans.

Religious and magical therapy are of minor importance,[761] but Jain doctrines and practices are referred to frequently.[762] Each chapter begins with a maṅgala addressed to Ṛṣabha, Ariṣṭanemi,[763] Vardhamāna (= Mahāvīra),[764] the Tīrthaṅkaras, etc., and ends always with the same verse, referring to the revelation of the medical science by the Jinas. The sections on dravyaguṇa (4.20–46) and the therapeutical prescriptions are characterized by the absence of meat, honey[765] and alcohol,[766] in accordance with Jain doctrine,[767] but substances of animal origin like hair, nails, bones and excrements are freely used.

Inorganic substances regularly form part of medicines. Chapter twenty-four shows a rather advanced stage of alchemy.[768]

The tridoṣa theory is of great importance in the *Kalyāṇakāraka*, but blood is also recognized as a factor causative of diseases.[769]

Ugrāditya's sources have not been investigated,[770] but he states himself that his work is a shortened version of an extensive treatise on the eight limbs of āyurveda by Samantabhadra (20.86),[771] while the prime source of all medical works is said to be the *Prāṇāvāda* (20.84) or *Prāṇāvāya* (21.3; 25.54).[772]

Ugrāditya refers to several authorities who were specialists in one of more branches of āyurveda (20.85): Pūjyapāda[773] (śālākya), Pātrasvāmin (śalya),[774] Siddhasena (agada and bhūtavidyā),[775] Daśarathaguru (kāyacikitsā),[776] Meghanāda (kaumārabhṛtya), and Siṃhanāda (vājīkaraṇa and rasāyana).[777] Other authorities mentioned by Ugrāditya are Jaṭācārya (Śrījaṭa; 15.290),[778] Kumāranandin (20.23),[779] Kumārasena,[780] Śrutakīrti (20.23),[781] and Vīrasena (20.23).[782]

The hitāhitādhyāya quotes Caraka (p.715, 724, 725, 726, 738, 744), Kapilamuni (p.722), Kṣārapāṇi (p.734), Paitāmaha (p.724, 742), and Suśruta (p.716, 717), while also many persons are mentioned who were opponents or advocates of a non-vegetarian diet. The opponents are Paśupati, Bṛhaspati, Gautama, Agniveśya, Hastacārin, Vādbali,[783] Rājaputra, Gārgya, Bhārgava, Bhāradhvaja, Pālakāpya, Viśāla, Kauśikaputra, Vaidarbhya, Nara, Nārada, Kumbhadatta, Vibhāṇḍaka,[784] Hiraṇyākṣaka, Pārāśara, Kauṇḍinya, Kāthāyina, Tittira, Taitilya, Māṇḍavya, Śibā, Śibi,[785] Bahupatra, Arimeda, Kāśyapa, Yajñavalka, Mṛgaśarman, Śābāyana, Brahmā, Prajāpati, the Aśvins, Surendra, and Dhanvantari (p.720); the advocates are Viśvāmitra, Gautama, Kāśyapaputra, Pāṇḍya, Caraka, Bhikṣu and Tāpasa (p.727). Ugrāditya states in the same chapter (p.724–725) that a king of Avanti, called Pṛṣadvant, introduced the slaughter of cows.[786]

The *Kalyāṇakāraka* is quoted in the *Vīrasiṃhāvaloka*[787] and Revaṇārādhya's *Smaratattvaprakāśikā*;[788] it is referred to in Pūrṇasena's commentary on the *Yogaśataka*, Revaṇasiddha's *Vīrabhaṭṭīya*, and Ṭoḍara's *Āyurvedasaukhya*.

Ugrāditya is mentioned in the *Vaidyaśāstrapravartakācāryanāmasamuccaya*.

Special features

One of the most conspicuous features is the unprecedented arrangement of the diseases. Noteworthy elements in the field of nosology are, moreover: rakta, vāta and pitta types of asṛgdara (8.30);[789] rūkṣa- and snehajvara (8.78–79); the mention of rakaśa (11.64), parisarpa and visarpaṇa (11.67) among the kṣudrakuṣṭha group;[790] the description of śarkarāśūla (13.5),[791] bṛhadvraṇa (13.57), and āmaśopha (14.29);[792] the mention of a type of upadaṃśa called vaṃśākhyaśopha (14.7);[793] the absence of śūkadoṣa types (14.8); the description of the disorder usually called jālagardabha[794] under the name of jālakāla (14.42); a number of sixty-six mukharogas (15.118);[795] the description of virasaroga (16.27);[796] the presence of a raktaja type of svarabheda (16.59);[797] the dissociation of pratiśyāya (16.87–95) from the nāsāroga group; the absence of the viḍvighāta and bastikuṇḍala types of mūtrāghāta;[798] the absence of the śukraja type of mūtrakṛcchra;[799] visphoṭa as a variety of masūrikā (18.32); the employment of the term sphoṭamasūrikā (18.50);[800] the disease which is usually designated as makkalla goes under the name of markala (23.33).

Disorders left unmentioned are pānātyaya, bhagna, and the bālarogas, with the exception of the bālagrahas, as well as all the diseases added by Mādhava, with the exception of visphoṭa and masūrikā, namely āmavāta, śūla, medoroga, śītapitta, amlapitta and yonikanda, and also those added by Vṛnda, namely snāyukaroga and vardhma.[801]

Bālagrahas dealt with are: kinnara[802] (18.71–76), kiṃpuruṣa[803] (18.77–81), Garuḍa (18.82–84), Revatī (18.85–88), Pūtanā (18.89–94), Anupūtanā (18.95–99), Śītapūtanā (18.100–104), piśāca (18.105–108), and rākṣasa (18.109–113).

Grahas mentioned are devas, asuras, gandharvas, yakṣas, bhūtapitars, rākṣasas, piśācas, and nāgas[804] (18.115–126).

The chapter on alchemy (24) mentions three chief processes: parimūrchana, māraṇa and bandhana; the mercurial products resulting from these processes are suitable to the curing of diseases, the acquisition of wealth, and the acquisition of an incorruptible body respectively (3–4). Other subjects dealt with in this chapter are mūrchana and māraṇa (5), bandhana (9), śodhana (13–14), rañjana (15; 39; 42), garbhadruti (16; 26), svedana (17; 42), sāraṇā (35; 39; 42), sāraṇataila (35), krāmaṇa (36; 54), pratisāraṇā (37; 39), anusāraṇā (38), and vedha (40). A series of eight processes (mahāṣṭakarman) is referred to (43).

The dolāyantra is mentioned (17) and two types of mūṣā, the vajramūṣā (20) and the gostanamūṣikā (32; 33).

The ritual preceding alchemical operations includes paying homage to Jinendra, the Adhidevatās, Yakṣeśvara, Ambikā, Kūṣmāṇḍinī,[805] the Lords of the three worlds, all the Jinas, and the nine grahas (11–12).

The chapter on kalpas (25) describes kalpas of harītakī (3–4), āmalaka (5), triphalā (6–11), śilājatu (12–23), vāmyeṣā (24), pāṣāṇabheda and bhallāta (25–30), kharparī (31–32), vajra (33–35), mṛttikā (36),[806] gośṛṅgī (37), eraṇḍa (38), nāgī (39), kṣāra (40–42), and citraka (43–44).

Ugrāditya distinguishes three groups of vegetables not found in other works: pañcalavaṇīgaṇa, growing on the seashore, consisting of kukkuṭī, lavaṇī, masūrapattra, rāṣṭrikā, and yugmaparṇī (4.36); pañcabṛhatī, consisting of adhomāninī, arka, bṛhatī, citralatā, and vyāghrī (4.37); pañcavallī, consisting of kāravellī, kaṭukikā, mārjārapādī, paṭola, and tiktabimbalatā (4.38).

Remarkable names of medicinal plants used in the *Kalyāṇakāraka* are:[807] adhomāninī (4.37), araka or āraka (19.30), ārāmodbhavaśitaśītalikikā (24.46),[808] āraṇyālu (4.29), arśoghnī (4.29),[809] bāṣpotpāda (4.31),[810] bhaṅga or bhaṅgā (16.66),[811] bhṛgu (4.34), bhūkarṇī (4.29), bhūkūṣmāṇḍa (6.39),[812] bhūśarkarā (4.29),[813] bhūśirīṣa (10.11), bṛhacchagalikā (4.31),[814] buja (17.55), cillataru (19.31), citralatā (4.37),[815] dalitā (4.34), dravaṇikā (4.32), gośṛṅgī (25.37),[816] guhyākṣī (4.33), guptābīja (6.39), gṛdhrā (4.39), hastikarṇī (4.29; 25.38),[817] jaṅghāruhā (24.46), jharasī (4.32), kākalatā (18.103),[818] kākavallikā (18.94),[819] kāṇakālī (23.102), kandalakandaka (17.18),[820] kaṇikā (4.29),[821] kāñjīra (8.66; 13.65; 13.87), kanyā (4.35),[822] kapi (17.55),[823] karavandī (4.42),[824] karmaraṅga (4.43),[825] kharakarṇikā (25.39),[826] kṛtaka (19.30), kṣīrakañcuka (12.15), kucī (24.5), kuṇḍalatā (4.31), kuṇḍalī (4.29),[827] lavalī (11.116; 15.287), lavaṇī (4.33 and 36),[828] mācīlatā (4.32),[829] mahānīlikā (23.102), mārjārapādī (4.38),[830] matsyākṣī (4.34; 9.26; 24.46),[831] meghaninādikā (24.45),[832] muraṭikā (4.29), nāgī (25.39),[833] namalikā (4.29), nṛtyakāṇḍa (13.32; 16.12), pānikacarī (4.32), pañjikā (4.31), pecu (15.20),[834] phaṇī (4.33),[835] prabhu (17.55), putriṇī (4.32),[836] raktāśvattha (6.36), rāṣṭrikā (4.36),[837] revatīnetra (4.39), śailabilva (4.44), saṃkṣīriṇī (24.45),[838] śaravāriṇī (24.44), sarpākṣī (24.44),[839] śaśaśiras (4.30), śoli (4.34),[840] śukamukha (14.33),[841] sukhāhva or sukhāhvā (13.87),[842] talapoṭaka (16.13), tālī (2.29; 18.133), tanvī (23.96),[843] taralīkā (4.34), toraṇa (4.44), tulakī (4.44), tumbikā (19.30), urupuṣpa (4.41), vahā (4.31), vajravallī (18.26), vajrī (15.286),[844] vajrīlatā (4.30; 18.17), vaṃśinī (4.34), vamyeṣā (25.24),[845] veguṇḍikā (4.33),[846] vijālinī (15.9),[847] viṣadalikā (19.30),[848] and vyāghātaka (10.11).[849]

The author

Ugrāditya[850] mentions his name twice (25.53 and at the end of the hitāhita chapter) and informs us that he was instructed in medicine by Śrīnandin[851] or Śrīnandyācārya (20.84; 21.3; 25.51), at whose request he wrote the *Kalyāṇakāraka* (25.51–52) on the Rāmagiri mountain[852] in Veṅgi, situated in the country of Trikaliṅga (20.87; 21.3). The name of one of Ugrāditya's colleagues was Lalitakīrti.[853]

Ugrāditya was a Digambara Jain and belonged to the Deśīgaṇa, Pustakagaccha,[854] Pansogavalliśākhā of the Mūlasaṅgha,[855] of the line of Kundakunda.[856] The presence of monks belonging to the Deśīgaṇa in the above-mentioned part of India is proved by a tenth-century inscription from Udayagiri-Khaṇḍagiri.[857]

Date

Ugrāditya states that his teacher, Śrīnandin, was the guru of king Viṣṇurāja Parameśvara (25.51) and that he himself delivered his discourse in defence of vegetarianism at the court of Nṛpatuṅgavallabha Mahārājādhirāja amidst an assembly of learned men (end of the hitāhita chapter).[858]

This Nṛpatuṅga is identified as the Rāṣṭrakūṭa king Amoghavarṣa I (A.D. 814 to about 880);[859] Viṣṇurāja is identified as the Eastern Cālukya king of Veṅgī, Viṣṇuvardhana IV (A.D. 764–799),[860] or Kali Viṣṇuvardhana V,[861] or the father of Amoghavarṣa I, Govinda III (A.D. 793–814).[862] Hence Ugrāditya may have lived in the Deccan in the first half of the ninth century.[863]

The remarkable fact remains that no influence from the side of the *Mādhavanidāna* can be detected in his work.[864] The developed state of alchemy in a treatise from the ninth century can only be explained by assuming that this science originated in Southern India and spread from there to the northern parts of the country much later.[865]

The terminus ante quem depends on the chronological position of Revaṇārādhya, who quotes the *Kalyāṇakāraka*; R. Schmidt[866] was of the opinion that this author may have lived in the thirteenth century at its earliest.

Chapter 2
Authors and works from the period A.D. 1000–1500

The *Abhidhānaratnamālā*

The *Abhidhānaratnamālā*,[1] also called *Ṣaḍrasanighaṇṭu*,[2] is an anonymous lexicon that only gives synonyms of medicinal substances.[3]

Contents
The work is arranged in six chapters (skandha), corresponding to the six tastes, madhura, amla, lavaṇa, tikta, kaṭu, and kaṣāya, with respectively 76, 21, 6½, 110½, 62, and 107 verses.[4] This new type of arrangement provided the treatise with its second title.[5] After enumerating all the items of a group at the beginning of a chapter, the author gives synonyms of each drug. With regard to its contents the work is related to the *Aṣṭāṅganighaṇṭu*.[6]

The *Abhidhānaratnamālā* is quoted by Mallinātha in his commentary on Māgha's *Śiśupālavadha*.[7]

A commentary on the *Abhidhānaratnamālā*, called *Padarocanī*, was written by Veṅkaṭārya or Veṅkaṭapatipaṇḍita.[8]

Special features
Noteworthy names of medicinal plants are: ādārī (4.96a); ajjhaṭā (4.78c); ārāmaśītalā (= kukkuṭamardaka, 4.97ab); brahmadaṇḍī (= avākpuṣpī, 5.59c); brāhmaṇayaṣṭikā (= padmā, 4.29b); cāṇakya (5.31a); ḍolāphala (1.23a); haladī (= haridrā, 4.18ab); huṃkāra (= bahukaṇṭaka, 6.53d);[9] jalajambū (= nādeyī, 6.23cd); jharasī (4.98cd);[10] jharjhara (6.50ab); kabarī (= kākolī, 1.13ab; = hiṅgupattrī, 5.58a); kacchurī (6.62c); khaṭvā (1.51d);[11] lavaṇī (= kaṅgunī, 4.53c; = tīkṣṇapattrā, 6.72a); mahākadamba (6.56a); maheraṇarasā (= śallakī, 6.56cd–57ab); nadīkāntā (= prācībalā, 5.61a);[12] nahikā (= śukanāsā, 4.105cd); papphaṇa (= vṛkadhūmaka, 6.50b); sālāma (5.31c); sidhraka (6.51); śṛṅgarīṭī (= poṭagalā, 1.19c); sthalaśṛṅgāṭaka (1.38d); talapoṭaka (6.64d); turyapiṇḍī (6.73a); vajravallī (= śṛṅkhalā, 5.59b); vāsantī (5.55a); vaṭapattrikā (= mohinī, 4.106); vātaṅginī (6.66); vijayā (= bhaṅgī, 4.74a); yakṣadṛś (= kuberākṣī, 4.28ab).[13]

Rudrākṣa is regarded as a synonym of pārāvata (2.19c).[14] Musk (5.45) and civet (5.46ab) are known to the author of the *Ṣaḍrasanighaṇṭu*. Mercury is elaborately described (6.101–103), but opium is absent.[15]

The author
At the end of one MS,[16] the work is said to have been written by the elder brother of Caturaracita (-rakṣita?).[17] More information about the author is not available.[18]

Date
The lower limit is provided by the quotations from the *Abhidhānaratnamālā* in Mallinātha's commentary on the *Śiśupālavadha*. Hence the work cannot be later than the early fifteenth century. Its affinity with the *Aṣṭāṅganighaṇṭu* may indicate that it is posterior to about A.D. 800–1000.

Amṛtanandin

Amṛtanandin, a Jain who lived about A.D. 1300, composed the *Akārādi(vaidya)nighaṇṭu*, also called *Dhanvantarinighaṇṭu*.[19]

Avadhānasarasvatī

Avadhānasarasvatī,[20] of Atri- or Ātreyagotra, a resident of Makṣikāraṇya in Tuṇḍīramaṇḍala,[21] son-in-law of Kāmeśanātha who was the son of Ekāmranātha,[22] and father of Veṅkaṭeśa,[23] wrote (1) the *Praśastauṣadhasaṃgraha*[24] and (2) a *(Vaidya)śataślokī*.[25]

The *Praśastauṣadhasaṃgraha*[26] is a collection of recipes in 120 verses. The arrangement of the diseases and some other topics is as follows: jvara (2–3), raktapitta (4), pradara (5), asthisruti in women (6),[27] kāsa, śvāsa and hidhmā (7–9), kṣaya (10–11), arocaka (12), vami (13), mūrchā (14), tṛṣṇā (15), saṃnyāsa (16–17ab), arśas (17cd–19), udāvarta (20), atisāra (21–22), grahaṇī (23–24ab), agnimāndya (24cd), viṣūcī (25), prameha (26–27), mūtrakṛcchra (28), pramehapiṭikā (29), aśmarī and śarkarā (30), somaroga (31), vidradhi (32), stanavidradhi (33), vṛddhi (34–36), raktagulma (37), śūla (38), udara (39), pāṇḍuroga (40), kāmalā (41), śotha (42), visarpa (43), masūrikā (44), śītapitta (45), kuṣṭha (46–47), śvitra (48), kṛmi (49), vātavyādhi (50–51), pittavikāra (52–53), kaphavikāra (54), vātarakta (55), āvṛti (56–57),[28] sthaulya (58), vandhyātva (59), garbhiṇīroga (60–61),[29] bālagrahas (62–63), bhūtas (64), unmāda (65), apasmāra (66), netraroga (67–70), karṇaroga (71–73), nāsāroga (74), oṣṭharoga (75), gaṇḍamālā (76), dantaroga (77), jihvāroga and tāluroga (78), mukharoga (79), śiroroga (80–81), vraṇa (82–83), sadyovraṇa (84–85), bhaṅga (86), bhagandara (87), granthi (88), ślīpada (89), arbuda (90), vraṇa (99), nāḍīvraṇa (92), kṣudraroga (93–94), upadaṃśa (95), yoniroga (96), sthāvaraviṣa (97), jaṅgamaviṣa and sarpaviṣa (98–100), kīṭaviṣa (101), vṛścikaviṣa (102–103), lūtāviṣa (104), unduruviṣa (105), alarkaviṣa (106), nakhadantaviṣa (107), vyaṅga and lāñchana (108), koṭha (109), vājīkaraṇa (110–112), rasāyana (113–115), general prescriptions (116–118).

This order does not agree with that of the *Mādhavanidāna*, but may have been influenced by the arrangement found in the works ascribed to Vāgbhaṭa.

The *Śataślokī* is described as a short treatise of 126 verses on simple ways of curing diseases[30] or as a manual of materia medica.[31]

Since Ekāmranātha lived in the fourteenth century, Avadhānasarasvatī can be assigned to the later part of the same century or the beginning of the fifteenth.[32]

Ballāladeva

Ballāladeva was the author of a *Yogamuktāvalī*[33] in 759 verses. He did not adopt Mādhava's arrangement of the diseases. The treatment of masūrikā and śītalikā is dealt with in his work.[34]

The author is supposed to be identical with Ballāladeva, a famous king of the Sena dynasty of Bengal.[35] This king, usually called Ballālasena, and his son, Lakṣmaṇasena, are credited with five works on dharmaśāstra and related subjects; well-known is their *Adbhutasāgara*, a treatise on omina and portenta.[36] Ballālasena's literary activity must be placed in the third quarter of the twelfth century[37]

A *Vaidyakasārasaṃgraha* is attributed to an author of the name Ballāla.[38]

Bharadvāja

Bharadvāja is the reputed author of (1) *Bheṣajakalpa*, (2) *Bharadvājakalpa*,[39] (3) *Bhāradvājīya* or *Bharadvāja*,[40] and (4) *Rasapradīpikā*.[41]

The *Bheṣajakalpa*,[42] [43] attributed to Bhāradvāja,[44] is, as its name implies, a treatise on pharmaceutics.

Contents

The text of the *Bheṣajakalpa*, which formed part of a larger work called *Āyurvedasudhānidhi*,[45] has 525 verses[46] and deals with many aspects of Indian pharmaceutics.

The main subjects are: the types of country (3–10); the varieties of soil according to the mahābhūta which predominates in it (11–23ab); rules for the collection of drugs (23cd–45); drugs consisting of bulbs or tubers (46–48ab), roots (48cd–50ab), root bark (mūlatvac; 50cd), bark (dārutvac; 51–52ab), heartwood (sāra; 52cd–53ab), leaves (53cd–57ab), flowers (57cd–59ab), fruits (59cd–61), seeds (62–65), caustics (kṣāra; 66–69), milky juice (70), resinous substances (niryāsa; 71–73), and whole plants (sarvāṅga; 74–75), time limits for their use (78cd–80ab) and rules for their preservation (80cd–82); the construction of an ārogyaśālā and the erection of images in it (83–102ab); series of drugs to be employed when still fresh (102cd–104) and roots to be used together with or without their bark (105–108ab); substitutes for particular drugs (108cd–131); weights and measures (132–217); the five types of kaṣāya (218–312ab); medicinal oils and fats (312cd–386); the preparation of harītakī fruits (abhayāpāka; 463cd–494); the purification of guggulu (495–499ab); the preparation of caustics (499cd–508); general rules for the administration of medicines (509–524).

Names of authorities referred to or quoted are Ātreya (216; 412cd–413ab), Bhāluki (260), Bhoja (215; 261–270), Caraka (177), Kharanāda (187), Kṛṣṇātreya (276cd–283), Ravigupta (286cd–287), Śālihotra (163cd–165), Śaunaka (313b–331), and Suśruta (186; 284–286ab; 361cd–362).

A *Bheṣajakalpa* is mentioned as a source in the *Basavarājīya* and *Ratnākarauṣadhayogagrantha*.[47] A *Bheṣajakalpa* is referred to in Revaṇasiddha's *Vīrabhaṭṭīya*.

Veṅkaṭeśa, the son of Avadhānasarasvatī,[48] of Ātreyagotra,[49] who lived in the fifteenth century, wrote a commentary on the *Bheṣajakalpa*.[50] This commentary is said to quote from numerous authorities, such as Bhāluki, Bhoja, Caraka, Kṛṣṇātreya, Śaunaka, Suśruta, and others.[51] The same Veṅkaṭeśa composed a medical treatise called *Praśnottararatnamālā* and a work on metrics called *Vṛttaratnāvalī*.[52]

Maṅgalagiri Sūri, of Gelavaṅgala family and Ātreya gotra, son of Jagannātha, wrote a commentary on the *Bheṣajakalpa*, called *Sarvāṅgasaṃjīvanī*, but also sometimes referred to as *Bheṣajakalpasthāna* or even *Kalpasthāna*.[53]

Special features

The sādhāraṇa type of country is divided into two varieties according to the predominance of jāṅgala or ānūpa elements in it (10); the rules about doubling the quantity of fluids in recipes are elaborately described according to the views of several authorities (170cd–202); two varieties of fluid substances (sāma and nirāma) are distinguished (199cd–202), because the rules for doubling the quantity do not apply to the second variety; a māgadha type of prastha is mentioned, used in human medicine, and a laukika one, measuring only half of it, which is employed in veterinary medicine (208cd–211ab); the kāliṅga measures are absent; the number of palas making one prastha is moreover said to depend on the type of substance employed (211cd–217); religious rites which should accompany the preparation of medicines are often described (240–243ab; 339–344; 364cd–373ab; 377cd–388); two varieties of ariṣṭa are described, lehya and peya (390cd–391); astrological elements are prominent among the rules for determining the appropriate time of ingesting a medicine (520–524).

Noteworthy substances of the materia medica are: aphenaka (73), arimedadvaya (73), balāpañcaka (48),[54] barbara (124), barbarā (48),[55] barbaradvandva (68),[56] barbaradvaya (115), bhañjī (54),[57] brahmabhūruha (114),[58] harimañjarikā (53),[59] jhilli (53),[60] kiṃśukadvandva (51), lakṣmīrdvitaya (56), lavaṅgaka (51),[61] lavaṇī (55), mehāri (72),[62] nagnajit (62),[63] pattrasnuh (70),[64] puṣya (57),[65] śaṅkhinīyugma (63), sināḍikā (112),[66] śvetabarbara (124), śyonāka and kaṭvaṅga as two different plants (50–51), takkola (64), talapoṭa (55),[67] toraṇa (61),[68] upānadaṅghri (54),[69] varakanyā (67), varakanyakā (70), and varāla (59 and 110).[70]

The author

Some medical works may have been ascribed to Bharadvāja because an ancient sage of this name is mentioned in the *Caraka-*, *Bhela-*, and *Kāśyapasaṃhitā*, as well as in the *Aṣṭāṅgasaṃgraha*, but the works attributed to him must have been composed or compiled at a much later date than those mentioning Bharadvāja as an ancient authority.

Date

Since the *Bheṣajakalpa* (73: aphenaka) and the *Rasapradīpikā* (chapter two) both mention opium, it is impossible to assign these works to a period much anterior to about 1200. The reference to a group of five balās (balāpañcaka: 10) and other features of the materia medica of the *Bheṣajakalpa* seem to confirm this upper limit, while the lower limit is provided by the date of Veṅkaṭeśa's commentary.

Bhoja

Bhoja is credited with the following medical works: (1) *Cārucaryā*,[71] (2) *Rājamārtaṇḍa*,[72] (3) *Rājamṛgāṅka*,[73] (4) *Āyurvedasarvasva*,[74] (5) *Viśrāntavidyāvinoda*,[75] and (6) *Rasarājamṛgāṅka*.[76] A *Bhojarājanighaṇṭu*, recorded by some authors,[77] appears to be the same as Bhoja's *Nāmamālikā*,[78] which is not a nighaṇṭu in the medical sense. A treatise called *Śālihotra*, attributed to Bhoja, deals with horses.[79] An *Āyurvedarasāyana*,[80] *Vaidyasaṃgraha*[81] and *Yogasārasaṃgraha*[82] are also attributed to Bhoja.[83]

(1) The *Cārucaryā*[84,85] is a treatise on personal hygiene and daily regimen (dina- and rātricaryā, with some elements of ṛtucaryā), intended for use by the royal court.[86] The author makes clear that his work will deal with elements of nīti-, vaidya-, and dharmaśāstra.[87]

The number of verses in the MSS and editions varies considerably.[88] The majority of the stanzas are in anuṣṭubh metre, but longer metres are occasionally also employed.[89]

A considerably enlarged version of the *Cārucaryā*, represented by a Mysore MS, has been current in Southern India.[90]

The following subjects are dealt with: śaucavidhi (micturition and defecation early in the morning; 2), prātaḥkāladarśanāni (auspicious things to be seen first on getting up; 3–4),[91] dantadhāvanavidhi (brushing the teeth; 5–44), gaṇḍūṣavidhi (the use of gargles; 45–49), netrapañcāmṛta (hygiene of the eyes; 50), abhyaṅga (the application of oils to the body; 51–82), snānavidhi (bathing; 83–91), udvartana (massage; 92–93), anuṣṭhānāni (religious observances after bathing; 94–98), vastradhāraṇa (the wearing of different types of clothing; 99–146), bhūṣaṇadhāraṇa (the wearing of ornaments; 147–172), puṣpadhāraṇa (the wearing of flowers; 173–238), lakṣmīkarāṇi (things leading to prosperity; 239–243),[92] alakṣmīkarāṇi (things leading to misfortune; 244–256), lepa (unguents; 257–332), bhojana (articles of food; 333–380), ambupāna (the drinking of water; 381–419), dhātupariṇāma (metabolic changes of food; 420–432), pātra (vessels; 433–457); the tāmbūlādhikāra (458–603) is on betel chewing, the prakīrṇādhikāra (604–665) on various subjects (mirrors, fans, vehicles, beds, incense, etc.), and the strīsevāprakaraṇa (666–736) on sexual intercourse; the last section, called nītivākyāni (737–784) is about general rules of conduct.

The text of the *Cārucaryā*, as established by B. Rama Rao, cannot possibly be regarded as the original one, since it quotes the *Bhāvaprakāśa* (724–728),[93] dating from the sixteenth century. The only other treatise quoted by name is the *Saṃgraha* (509), probably the *Aṣṭāṅgasaṃgraha*, whereas citations from unspecified sources,

introduced by anyat, anyamatam, granthāntare, matāntaram, matāntare, and pāṭhāntare are quite numerous. Some of these unspecified quotations recur in the *Bhāvaprakāśa*.[94]

Bhoja's *Cārucaryā* is quoted by Rāmacandra Budhendra in his commentary on Bhartṛhari's *Subhāṣitatriśatī*.[95] Several texts contain verses found in the *Cārucaryā* or very similar ones.[96]

A *Cārucaryā* ascribed to Dhanvantari[97] may prove to be the same as that by Bhoja.

(2) The *Rājamārtaṇḍa*[98,99] is a yogasaṃgraha, a collection of therapeutic prescriptions, mostly consisting of a restricted number of vegetable drugs.[100]

The work contains 405 verses in various metres, arranged in thirty-four short chapters (adhikāra). The order of these chapters, each of which is concerned with a disease or group of diseases, is peculiar to this work. Chapters on śālākya come first (1–5), followed by kāya and śalya (6–27), bhūtavidyā (28), agadatantra (29), kṣudraroga (30), kaumārabhṛtya (31–32), rasāyana and vājīkaraṇa ((33), and finally paśuroga (34). Noteworthy is the absence of rasayogas among the recipes.

The *Rājamārtaṇḍa* is quoted by Anantakumāra (under the title *Rājamārtaṇḍīya*),[101] Rājeśvaradatta Miśra in his *Svasthavṛttasamuccaya*, Rāmacandra in his *Rāmavinoda*,[102] Śivamiśra in his *Vaidyaśāstraśivānubhava*, in Trimalla's *Yogataraṅgiṇī*[103] and *Bṛhadyogataraṅgiṇī*,[104] and in the *Yogaratnākara*.[105] Bhoja's *Rājamārtaṇḍa* is one of the sources of Hariprapanna's *Rasayogasāgara*. One verse is found in the *Rasaratnasamuccaya*.[106]

A separate chapter is devoted to stanaroga (6); it also contains prescriptions which make the female breasts firm and large. Separate chapters deal with pādaroga (23), and with carmakīla, together with maṣa (24). The chapter on kṣudraroga (30) does not form part of the series on śalya. The chapter about eye diseases has also verses on kāmalā (3.18–20), that about diseases of the oral cavity and throat (mukharoga) on gaṇḍamālā (5.29–30 and 32) and apacī (5.31), that about udara has a verse on kṛmi (7.7), and that about vātaroga on asthibhaṅga (22.5). The new diseases, described for the first time by Mādhava, Vṛnda and Vaṅgasena, are for the greater part absent, apart from śītapitta (8.12). The disease called śītalikā is mentioned in the kṣudraroga chapter (30.2–5). The kuṣṭha chapter contains a prescription against aṅghridadru, a mycotic affection of the feet (8.3), and one against rakasa (8.4). The disease, usually called vṛddhi, goes under the name kuraṇḍa (17.1 and 5–7). Rather unusual is the addition of a chapter on veterinary science (34),[107] dealing with disorders in cows, buffaloes, horses and mules, and with determining the colour of the offspring of pigeons. A similar chapter forms part of the *Haramekhalā*. Both works refer to a disease in horses and mules called jalasphoṭa in the *Rājamārtaṇḍa* (34.14) and vārisphoṭa in the *Haramekhalā* (4.411).

Noteworthy names of plants[108] are ārāmaśṛgālikā (31.39),[109] asthisaṃghātikā (22.5),[110] āvallikā (26.13),[111] babbūla (14.1), bhūkuruvaka (34.11),[112] cakrāṅka (3.9),[113] gopālapīṭha (26.8),[114] goṣṭhāmlikā (26.8),[115] goṣṭhīvallī (24.2),[116] jhiñjhiṇikā (5.34),[117] kanthārikā (29.21),[118] māyāphala (31.44), svarṇagandhā (5.21), udumbaraparṇī (31.15),[119] and uttariṇī (31.22).[120] Opium and Cannabis appear to be absent.

(3) The *Rājamṛgāṅka*[121] is a work dealing with taila, lehya, cūrṇa, etc.[122] It is referred to as a work on medicine by Bhoja in the introduction to the *Bhojavṛtti* on the *Yogasūtras*.

A quite different *Rājamṛgāṅka* of Bhojarāja is an astronomical treatise.[123]

(4) The *Āyurvedasarvasva* of Bhojarāja is quoted in Trivikrama's *Lauhapradīpa*.[124]

(5) The *Viśrāntavidyāvinoda*[125] is said to be quoted by Bhāvamiśra.[126]

(6) The nature and contents of the *Rasarājamṛgāṅka*[127] are unknown.[128]

The author and his date

At least two medical authors with the name of Bhoja should be distinguished: firstly an ancient authority quoted by many commentators,[129] and, secondly, the author who is usually called Bhojarāja and to whom the works are ascribed which were dealt with above.

The later Bhoja is often thought to be king Bhoja of the Paramāra dynasty, the famous patron of learning, who reigned at Dhārā (about A.D. 1000–1055) and to whom more than thirty Sanskrit technical works are ascribed.[130] It cannot be established whether at least some of these works were written by the king himself or all of them fathered upon him. Bhojarāja has also been identified with Bhoja of Chitor, who lived in the second half of the seventh century.[131] A third Bhoja, of the Pratīhāra dynasty, had his capital at Kānyakubja in the ninth century.[132]

The medical works attributed to Bhojarāja may be assigned to about the eleventh century, the age of Bhoja of Dhārā, as an earlier date disagrees with the contents and materia medica of the *Rājamārtaṇḍa*.[133] The date of Appana's rendering of the *Cārucaryā* shows the thirteenth or fourteenth century to be the terminus ante quem of this work.

P. Hymavathi[134] developed the view that the Bhojarāja who was the author of the *Cārucaryā* may be the same as a poet Bhoja who was a contemporary of Divākara Sūri, the father of Lolambarāja, who lived towards the close of the thirteenth century.[135] The addition of rāja to the proper name was a common practice among brāhmaṇa scholars in Āndhra during this period. P. Hymavathi suggests that the *Cārucaryā* has been composed in the middle of the thirteenth century. He regards the *Nītibhūṣaṇa*, written in Telugu, as a work by the same author, written in this very time, because it is quoted by Maḍiki Siṅgana, who lived towards the end of the thirteenth century, in his *Sakalanītisammatamu*. A third work by the same Bhoja is, according to P. Hymavathi, the *Rāmāyaṇacampū*, written in Sanskrit.[136] Finally, P. Hymavathi suggests that Bhoja's patron may have been Gaṇapatideva (A.D. 1198–1261)[137] or his daughter Rudrāmbā (Rudrammadevī)[138] of the Kākatīya dynasty, or some feudal lord.

Bhojarāja is quoted in Anantakumāra's *Yogaratnasamuccaya*, Śivadāsena's commentary on the *Cakradatta*,[139] and Trivikrama's *Lauhapradīpa*.

A recipe attributed to Bhojarāja is found in the *Kāmaratna*.[140]

Cāmuṇḍa

Cāmuṇḍa[141] was the author of (1) *Jvaratimirabhāskara*, (2) *Rasasaṃketakalikā*,[142] (3) *Rasendratilaka*,[143] (4) *Varṇanighaṇṭa*, and (5) *Vibhramaḍambara*.

(1) The *Jvaratimirabhāskara*[144] is a monograph on fevers.

The treatise consists of about 1,380 verses, arranged in sixteen chapters (adhyāya). Chapter one (jvaraprabheda; seventy-four verses) deals with the mythical origin of fever (5–9ab), its names in a great variety of living beings and some lifeless substances (9cd–16), its general aetiology and symptomatology, its varieties and its ariṣṭas.

Chapter two (nāḍikādibheda; fifty-eight verses) describes the examination of the pulse (1–14) and the urine (16–26) in fever patients, the first stage of fever (taruṇajvara) and its treatment (34–58) by means of reducing measures (laṅghana).[145]

Chapter three (auṣadhādiparikrama; ninety-three verses) is about certain, chiefly fluid, medicinal preparations (kvātha, yavāgū, yūṣa, etc.), to be administered to patients with a fresh fever; chapter four (sādhāraṇajvaracikitsā; thirty-seven verses) is about the general treatment of fevers with medicines.

Chapter five (vātādijvara; ninety-nine verses) is concerned with the symptoms and therapy of fevers caused by one doṣa, and chapter six (dvandvajajvaracikitsā; sixty-five verses) with fevers caused by two doṣas.

Chapter seven (saṃnipātajvaraprabheda; 358 verses), the longest of the whole treatise, describes, after a general section on fevers caused by the three doṣas when acting concertedly (1–56), the symptoms and therapy of three series of thirteen varieties of these fevers. The names of all these fevers are enumerated (57–64), followed by their symptomatology and treatment. The first series consists of visphāraka, śīghrakārin, puṣkalaka, vidhu, makarin, phalgu, vaidārikakarṇāhva, karkoṭaka, saṃmohaka, yāmya, krakaca, pākala, and kūṭapākala (65–140).[146] The members of the second series are sandhiga, antaka, rugdāha, cittabhrama, karṇaka, kaṇṭhakubja, śītagātra, tandrika, pralāpaka, raktaṣṭhīvin, bhugnanetra, jihvaka, and abhinyāsa[147] (183–305).[148] The third series consists of antardāha, antaka, kumbhīpāka, paurṇanāva, pralāpin, eṇīdāha, bhūtahāsa, ajaghoṣa, hāridraka, saṃśoṣin, saṃnyāsa, yantrāpīḍa, and daṇḍapāta (308–337);[149] a fever called sughoraka (333–347ab)[150] is regarded as a variety of saṃśoṣin.

Chapter eight (āgantujvara; thirty-six verses) is about fevers caused by a trauma and by the seven types of abhiṣaṅga, i.e., by grahas, anger, strong-smelling herbs, poisons, grief, lust, and fear; a fever arising from curses is added at the end.

Chapter nine (satatādijvaraprabheda; 138 verses) is concerned with the five irregular fevers which are usually distinguished (saṃtata, satata, anyedyuṣka, tṛtīyaka, caturthaka), together with the reversed (viparyaya) types of the last four of the series; it adds two irregular fevers, recurring respectively every fifth (pañcāhasaṃbhava; 84–85ab) and every sixth day (ṣaṣṭhadinodbhava; 85cd–87);[151] vātabalāsaka (88–89) and pralepaka fever (90–92) are also dealt with in this chapter, as well as fever arising from the pollen of grasses, i.e., hay fever (tṛṇapuṣpaka; 93–97ab),[152] and fever from the loss of ojas (97cd–100ab).[153] The therapy of the irregular fevers is found at the

end of the chapter (100cd–138).

Chapter ten (śītadāhādiprabheda; sixty-four verses) is about irregular fevers, caused by two doṣas, which are characterized by coldness (śītajvara; 1–22) or a burning sensation (dāhajvara; 22–32); these fevers are said to find their origin in evil deeds committed in previous lives; fevers beginning with a feeling of coldness (śītādijvara; 33–34) or a burning sensation (dāhādijvara; 35–36) are also found in this chapter, as well as those in which the body is partly cold, partly warm (the nṛsiṃha and ardhanārīśvara types, 37–42; the antardāha and bahirdāha types, 43–46ab); the chapter ends with a fever that especially occurs during the night (rātrijvara; 46cd-49).[154]

Chapter eleven (dhātugatajvaraprabheda; forty-one verses) deals with fevers affecting the seven tissues of the body, and chapter twelve (jīrṇajvaracikitsā; sixty-six verses) with fevers of long standing.

Chapter thirteen (śodhanādiprabheda; eighty verses) is about a number of therapeutic measures: śodhana, pañcakarman, pācana, sneha, sveda, vamana, virecana, nasya, basti, nirūha, anuvāsana, varti, agnikarman, and agada; it ends with religious therapy (dāna, mantra).

Chapter fourteen (dvādaśaprabheda; one hundred verses) describes the symptoms and treatment of twelve fevers: ajīrṇajanita-, dṛṣṭija-, raktaja-, malajanita-, garbhiṇī-, sūtikā-, stanarogabhava-, bāla-, visphoṭa-, śītalā-, krimija-, and kālajvara.[155]

Chapter fifteen (nakṣatrādijvaraprabheda; thirty verses) deals with the influences of the lunar mansions (nakṣatra) on the outcome of fever (1–5), the four types of kālajvara (raudra = brāhmaṇajvara; māhendra = kṣatriyajvara; īśvara = vaiśyajvara; kālagambhīra = śūdrajvara; 6–18), which can be treated with religious measures only,[156] with the signs of release from fever (19–20ab), the causes of its reappearance (23–26ab), and finally with religious observances which avert all kinds of fever ((26cd–30).

Chapter sixteen (upadravādiprabheda; 41 verses) is about the ten complications (upadrava) of fever (atisāra, vami, hikkā, śvāsa, kāsa, aruci, tṛṣṇā, mūrchā, vibandha, agnisāda), which are described as its relatives.[157]

The above list of contents shows that Cāmuṇḍa arranged his treatise very systematically. This also emerges from his descriptions of treatment. The therapy of the fevers caused by one doṣa forms a fine example of his method: details about the drinking of water are given first, followed by prescriptions regarded as pācana, śamana and śodhana, while rasayogas appear at the end. The verses on therapy of each chapter are divided into two groups, those comprising the usual āyurvedic preparations and those containing rasayogas. The recipes of the former group are partly simple, partly complicated, and sometimes provided with names, while those of the latter are usually provided with names.[158] The materia medica is almost devoid of conspicuous features. Religious elements, mantras included, are not infrequent in Cāmuṇḍa's therapy.[159]

Sources are hardly referred to: Caraka, Garga, Suśruta, and *Vṛddhasuśruta* are each mentioned once.[160] Since a number of verses found in the *Jvaratimirabhāskara* also form part of Śārṅgadhara's *Triśatī*,[161] the latter work has probably been used by Cāmuṇḍa.

The *Jvaratimirabhāskara* is quoted in Ananta's *Pratāpakalpadruma*, Jayaratna's

Jvaraparājaya, and Pratāpasiṃha's *Amṛtasāgara*. A work of the same title is mentioned in an *Auṣadhikalpa*.[162]

The method of examination of a patient called aṣṭasthānaparīkṣā was already known to Cāmuṇḍa, as appears from the beginning of chapter seven (5–10),[163] where the eight elements of this procedure are referred to, although the term itself is not yet employed.[164] Most of the saṃnipāta fevers of the second series are twice described, apparently according to two different sources.[165] The fever called hāridraka is described twice as well (7.316–320ab);[166] the series of fevers to which hāridraka belongs is said to be contagious, and fatal if provided with the complete set of symptoms (7.321cd-322); nevertheless some verses on the therapy of hāridraka have been incorporated in the treatise (7.325–331).[167] The sughoraka fever (7.333–346ab) is not known from other sources. It is described twice. The second and more elaborate description, said to have been taken from some other work, constitutes a conversation between Sūrya and the Aśvins. The former declares that this fever arose out of Rudra's wrath at the time of Dakṣa's sacrifice. Its five varieties are called brāhmaṇa, kṣatriya, vaiśya, śūdra, and cāṇḍāla. The brāhmaṇa fever is easily curable, the kṣatriya type curable with difficulty, the vaiśya fever even more so, while the śūdra and cāṇḍāla types are incurable. Two ways of treatment are recommended: firstly treatment by means of gifts, meritorious deeds, and paying homage to Rudra and Bhavānī, secondly by means of medicines. The verses on vātabalāsaka (9.88–89) mention that some authorities regard it as identical with the variety of jaundice called kumbhakāmalā.[168] The pralepaka fever is said to occur especially in patients with (rāja)yakṣman (9.90–92).[169] A fever caused by unwholesome water is referred to incidentally (vāridoṣa; 11.32). The therapy of śītalā, also called pūrvāpara, consists mostly of purely medical measures (14.73–87).[170]

Some noteworthy names of medicinal plants are aileya (4.28),[171] ākallaka (7.45), bhadrotkaṭa (14.24),[172] cillaka (3.73), dāsī (11.14),[173] gārgī (7.234), pillaka (3.73), and poī (3.73).

(2) The *Varṇanighaṇṭa*[174] appears to be a vocabulary of Tantric terms.[175] This work is referred to in Śrīvallabhagaṇi's commentary on the first verse of Hemacandra's *Nighaṇṭuśeṣa*.[176]

(3) The *Vibhramaḍambara*[177] is a work on magical tricks (kautuka).[178]

The author

Cāmuṇḍa[179] or Caṇḍa[180] was a Naigama[181] kāyastha,[182] son of Kumbha,[183] who was a karaṇavīra,[184] i.e., a superintendent of the department of accounts and records of a king, who may have been the famous Mahārāṇā of Mewāṛ, who was also called Kumbha. Like his father, Caṇḍa lived in Mewāṛ,[185] holding the same office[186] at the court of the Mahārāṇā in Yoginīpattana[187] or Yoginīpura,[188] where he composed the *Rasasaṃketakalikā*[189] and *Jvaratimirabhāskara*.[190]

Date

The *Rasasaṃketakalikā* was completed in A.D. 1474,[191] the *Varṇanighaṇṭa* in 1482,[192] and the *Jvaratimirabhāskara* in 1489/90,[193] 1490,[194] or 1492.[195] All three works were written during the reign of Rājamalla,[196] one of Kumbha's sons.[197]

Cārucandrasūri Rudrapallīya

Cārucandrasūri Rudrapallīya wrote a medical treatise, called *Vātaśita*, in the latter half of the fourteenth or first half of the fifteenth century.[198]

Dāmodara

Dāmodara's *Ārogyacintāmani*[199] is a comprehensive treatise on classical āyurvedic lines. It has erroneously been regarded as a commentary on Suṣeṇa's *Āyurvedamahodadhi*.[200]

Contents

The work, almost exclusively written in verse, is arranged in thirty chapters (adhyāya), to which three more are added, as well as four pariśiṣṭa chapters. The total number of stanzas is about 1,950.

Chapters one to seven cover the subjects usually dealt with in the sūtrasthāna of a saṃhitā. After a maṅgalācaraṇa devoted to Śiva, the author states that his *Ārogyacintāmaṇi* is based on the words of Caraka and others. Chapter one is concerned with paribhāṣā, dinacaryā, ṛtucaryā, and doṣavijñāna. Chapter two is about the tastes and articles of food, chapter three about the groups of medicinal substances and their actions, paribhāṣā, weights and measures, and lohamaṇḍūramāraṇa. Chapter four deals with sneha and sveda, chapter five with pañcakarman, chapter six with dhūmapāna, gaṇḍūṣa and kavala, pratisāraṇa, śirobasti, karṇapūraṇa, tarpaṇa, and sirāvidhi. Chapter seven is about ariṣṭas. The colophon refers to this group of chapters as the Sūtraśārīrākhyasthāna of Dāmodara's *Ārogyacintāmaṇisaṃhitā*, but the matter usually treated in a śārīrasthāna is absent.

Chapters eight to twenty-four comprise, according to their last colophon, the two sthānas about nidāna and kāyacikitsā. The order in which the diseases and their treatment are described is peculiar to this text: jvara and jvarātisāra (8), atisāra, grahaṇī, pravāhikā and kṛmiroga (9), arśas (10), ajīrṇa (11), raktapitta and asṛgdara (12), prameha, pramehapiḍikāḥ, mūtrakṛcchra and aśmarī (13), kṣayaroga (14), kāsa, śvāsa and hikkā (15), svarabheda and arocaka (16), chardi, tṛṣṇā and mūrchā (17), pāṇḍuroga, halīmaka and kāmalā (18), vidradhi and gulma (19), udara (20), udāvarta, śūla, hṛdroga and amlapitta (21), vātaroga, ūrustambha, āmavāta and vātarakta (22), kuṣṭha, śvitra, śītapitta and udarda (23), śopha, ślīpada and sthaulya (24).

Chapter twenty-five, concerned with śālākya, is about netra-, karṇa-, nāsā-, mukha- and śiroroga, to which palita, indralupta and dāruṇa are added. Chapter twenty-six, concerned with śalya, deals with vraṇa, bhagandara, upadaṃśa, granthi, galagaṇḍa, gaṇḍamālā, apacī, arbuda, lūtāvraṇa, jālagardabha, visphoṭa, masūrikā, tāruṇyapiḍakāḥ,[201] and valmīka. Chapter twenty-seven is about viṣa, cūrṇadāha, agnidāha, and madātyaya. Chapter twenty-eight deals with grahas, unmāda and apasmāra, twenty-nine with rasāyana and vājīkaraṇa, thirty with yoniroga, garbhaśūla, garbhapāta, sūtikāroga, stanyadoṣa, and bālaroga.

Three additional chapters follow, concerned with bheṣajakalpa, viṣapratyauṣadha and kriyākalpa. The chapter on bheṣajakalpa, i.e., the preparation of medicines, treats of general subjects related to the collection of drugs, gives a list of substitutes for drugs which cannot easily be procured, deals with weights and measures, the various medicinal preparations and the proportions of their ingredients, etc. It is the only chapter in which a series of authorities is mentioned by name: Ātreya (122), Aurabhra (81), Bhoja (122, 160–169), Caraka (93, 170), Kharanāda (102), Ravigupta (184cd-185ab), Śālihotra (83–85ab), Suśruta (101, 182–184ab), and Vāluki (159).[202] The chapter on viṣapratyauṣadha deals with antidotes, or rather drugs which counteract noxious effects of a rather long series of medicinal substances. The chapter on kriyākalpa, the only one in which prose occurs, is about pañcakarman.

The first pariśiṣṭa chapter, on pratyauṣadhas, enumerates more drugs which counteract noxious effects of other medicines; the second, on bheṣajakalpa, gives additional rules on the preparation of medicines; the third, on kriyākalpa, contains additional information on the types of preparation called gaṇḍūṣa, kavala and mūrdhataila; the fourth consists of a long series of kaṣāyas to be used in various disorders, and in addition it presents a number of gaṇas.[203]

Apart from the authorities mentioned in the bheṣajakalpa chapter and the reference to Caraka in the first verse, Dāmodara only specifies his source in the kriyākalpa chapter, where two prose passages are said to be taken from the *(Aṣṭāṅga)saṃgraha*.[204] More passages from this chapter were borrowed from the works ascribed to Vāgbhaṭa, though Dāmodara omitted to mention this.

Vāgbhaṭa is Dāmodara's main source according to S. Viswanatha Sarma.[205] Nevertheless, he does not follow this authority in the arrangement of the diseases. Some of the material included in his treatise has been influenced by Vāgbhaṭa without leading to literal borrowing; this is, for instance, clearly visible in the groups (varga) of medicinal substances of chapter three. The gaṇas of the kaṣāyapariśiṣṭa chapter, on the other hand, are identical with those of the *Aṣṭāṅgahṛdayasaṃhitā*.[206]

The *Ārogyacintāmaṇi* is quoted in the *Vīrasiṃhāvaloka*[207] and in Ṭoḍara's *Āyurvedasaukhya*.[208]

Special features

The chapter on prognostics (7) contains two verses on pulse examination.

Noteworthy are the following features of Dāmodara's nosology: the therapy of a raktapittajvara is described, not known from earlier texts, the symptoms of which are omitted (8.28–30); the only specific type of saṃnipāta fever described is abhinyāsa (8.44–50); asṛgdara is dealt with in the chapter on raktapitta (12.18–22); mūtrāghāta is absent from the chapter on urinary disorders (13); saṃnyāsa is absent from the chapter on chardi, tṛṣṇā and mūrchā (17); ślīpada is dealt with in the group of chapters on kāyacikitsā (24); the therapy of palita, indralupta and dāruṇa is described at the end

of the śālākya chapter (25);[209] bhagna and śūkadoṣa are absent from the śalya chapter (26), which includes masūrikā and visphoṭa; the therapy of only three kṣudrarogas, jālagardabha, tāruṇyapiḍakāḥ and valmīka, is described in the same chapter, and lūtāvraṇa[210] has been added; a new type of dāha, namely cūrṇadāha, is mentioned in the chapter on viṣa (27), along with agnidāha, while madātyaya is also relegated to this chapter; mūḍhagarbha and yonikanda are absent from the chapter on women's and children's diseases (30); some more diseases are not mentioned, such as vṛddhi[211] and visarpa.[212] The presence of disorders like āmavāta, the several types of śūla, sthaulya (= medoroga), śītapitta, amlapitta, visphoṭa and masūrikā betray the influence of the *Mādhavanidāna*, but some diseases added after Mādhava's time, such as vardhma, snāyukaroga and somaroga, are absent. On the other hand it is remarkable that asthisrāva is mentioned at the very end of the work (kaṣāyapariśiṣṭa 478–480).[213]

A conspicuous feature of Dāmodara's therapeutics is the absence of rasauṣadhas and the emphasis on medicinal substances of vegetable origin. Noteworthy in this context is the description of the killing (māraṇa) of maṇḍūra at the end of chapter three. The materia medica consists for the greater part of substances known from the classical saṃhitās. Some later elements are ākulī,[214] babbūlaka,[215] dhattūra,[216] khārī,[217] and maheraṇā.[218] Opium seems to be absent.

Religious therapy has been relegated to the background and has only a very minor role in possession by grahas and bālagrahas; remarkably enough, it is not even prescribed in masūrikā.

Dāmodara's work appears to be one of the first that extensively and minutely describe, in the bheṣajakalpa chapter, many rules pertaining to the preparation of compound medicines, especially with regard to the quantities of their ingredients and the ratios of these. A detailed discussion of this subject is not found in the earlier treatises themselves but only in their commentaries.

The lists of pratyauṣadhas form an unusual feature of the work.

The author

Dāmodara is said to be the son of Viṣṇubhaṭṭa in the colophons of the *Ārogyacintāmaṇi*. His father, Viṣṇu, originated from Vidarbha according to one of the MSS.[219] The text itself gives no particulars about the author and does not even mention his name.[220]

Date

Though it has been claimed that nothing is known about the author's time,[221] it is nevertheless possible to establish his chronology by taking into account that he must have lived in the same age or somewhat later than the author of the *Śārṅgadharasaṃhitā*, because the examination of the pulse is mentioned by Dāmodara. Since Dāmodara, on the other hand, must be earlier than Vīrasiṃha who quotes him, he can be dated to the first half of the fourteenth century.[222] This is also the date proposed by P. Hymavathi, who arrived at his conclusion on quite different grounds.[223]

Several medical authors bearing the name of Dāmodara are known. Unspecified authors of this name are quoted or referred to in Ananta's *Pratāpakalpadruma*, Haṃsarāja's *Bhiṣakcakracittotsava*, Rāmeśvara Bhaṭṭa's *Rasarājalakṣmī*,[224] Revaṇasiddha's

Vīrabhaṭṭīya, Vācaka Dīpacandra's *Laṅghanapathyanirṇaya*,[225] Viṣṇudeva's *Rasarājalakṣmī*, Viṭṭhala's *Rasasindhu*,[226] and in two anonymous treatises, the *Cikitsāsārasaṃgraha*[227] and the *Ratnākarauṣadhayogagrantha*.[228]

A Dāmodara is mentioned as one of the promoters of āyurveda in the *Vaidyaśāstrapravartakācāryanāmasamuccaya*.

The *Dhanvantarīyanighaṇṭu*

The *Dhanvantarīyanighaṇṭu*[229] is a comprehensive lexicon of materia medica which lists both the names and the properties of medicinal substances.

Contents

The treatise consists of two parts: a Gaṇadravyāvali (69 verses),[230] preceded by an introduction (19 verses), and the Nighaṇṭu in its proper sense (about 1,550 verses).[231]

The introductory verses open with a salutation to Dhanvantari; the author states thereupon that he is going to deal with the Sanskrit and Prakrit names of those among the endless number of vegetable and other substances which are useful in medicine. He hints at the compilatory character of his work by referring to the nighaṇṭus he consulted before composing his own treatise.[232]

The Gaṇadravyāvali divides the medicinal substances into seven large groups (varga), subdivided into smaller units (gaṇa). The substances belonging to each of these gaṇas are enumerated, together with their actions and modes of employment.[233] The names occurring in the lists of the Gaṇadravyāvali are mostly those of the first member of a series of synonyms of the Nighaṇṭu or consist of a commonly employed synonym. Exceptions to this rule are, for example, the two plants called puṇya (1.4)[234] and suparṇī (1.5),[235] sudhā (1.9),[236] and gṛñjana (4.4).[237] The total number of items of the Gaṇadravyāvali is said to be 373 (7.3), but the actual number of drugs described in the Nighaṇṭu is much larger.

One of the principles governing the composition of the *Dhanvantarīyanighaṇṭu* is to regard particular drugs, listed in the Gaṇadravyāvali, as representatives of a group of substances and to describe the members of such a group separately in the Nighaṇṭu,[238] either as a viśeṣa[239] or in a different way.[240] A related type of summarizing occurs especially in the lists of the sixth varga of the Gaṇadravyāvali: taila (6.7) refers to many kinds of oil, payas (6.7) to both milk and dadhi, etc. At the end of the sixth varga the Gaṇadravyāvali is said to have been expounded by Dhanvantari,[241] a statement that one expects to occur at the end of the seventh varga. This may imply that the seventh varga is a later addition,[242] the more so since the Gaṇadravyāvali omits to mention a large part of its contents.

The Nighaṇṭu, which deals with the synonyms of each drug and its properties and actions, follows the Gaṇadravyāvali in arranging the medicinal substances into seven large groups:[243] (1) guḍūcyādivarga, drugs which eliminate one or more of the doṣas; (2) śatapuṣpādivarga, mainly consisting of spices; (3) candanādivarga, consisting of fragrant substances; (4) karavīrādivarga, containing various plants; (5) āmrādivarga, fruit-bearing trees; (6) suvarṇādivarga, describing metals, minerals,

(semi)precious stones, and articles of diet; (7) miśrakādivarga, describing groups of drugs and poisonous substances.

As already said before, the number of drugs dealt with in the Nighaṇṭu is considerably larger than that mentioned in the Gaṇadravyāvali, because it distinguishes many varieties. This procedure is carried very far in some instances: vijayā (1.130–131)[244] is regarded as a variety of medā, khastila (6.120)[245] as a kind of grain. In rare cases it happens that the Nighaṇṭu describes a plant which is absent from the Gaṇadravyāvali and not considered to be a variety of some other plant listed in the latter.[246] The *Dhanvantarīyanighaṇṭu* ends with lists of ekārthas and anekārthas,[247] called *Uttaranighaṇṭu*.[248]

The compilatory character of the work is confirmed by the presence of quotations.[249] Sources are not mentioned by name, Nāgārjuna excepted,[250] but the author may have been acquainted with the *Aṣṭāṅganighaṇṭu*, since verses from that work form part of the *Dhanvantarīyanighaṇṭu*.[251] The *Rasaratnasamuccaya* or some of its sources may also have been consulted.[252]

The *Dhanvantarīyanighaṇṭu* is a work that gained much prestige.[253] A later treatise that was heavily influenced by it is the *Soḍhalanighaṇṭu*, which repeats a large part of the Gaṇadravyāvali[254] and many verses from the Nighaṇṭu.[255]

Authors and works quoting from or referring to the *Dhanvantarīyanighaṇṭu*[256] are: Aruṇadatta,[257] the commentary on the *Āyurvedābdhisāra*,[258] Bhaṭṭoji Dīkṣita in his *Tithinirṇayapradīpa*,[259] Bhāvamiśra in some glosses on his *Bhāvaprakāśa*, Candranandana,[260] Cūḍāmaṇimiśra in his *Rasakāmadhenu*, Haridattaśāstrin in his commentary on the *Rasataraṅgiṇī*, Hemacandra in his auto-commentary on the *Abhidhānacintāmaṇi*,[261] Hemādri,[262] Indu in his commentary on the *Aṣṭāṅgasaṃgraha*,[263] Jñānavimalagaṇi in his commentary on Maheśvara's *Śabdabhedaprakāśa*,[264] Kṛṣṇadatta in his commentary on Trimalla's *Śataślokī*, Kṣīrasvamin in his commentary on the *Amarakoṣa*,[265] Mahendra Sūri in his commentary on Hemacandra's *Anekārthasaṃgraha*,[266] Mallinātha[267] in his commentary on the *Amarakoṣa*,[268] Maṅkha in his *Anekārthakoṣa*,[269] Raghunātha in his *Bhojanakutūhala*, the *Śāligrāmanighaṇṭubhūṣaṇa* of the *Bṛhannighaṇṭuratnākara*, Priyavrat Śarmā in the auto-commentary on the *Dravyaguṇasūtra*, Śivadāsasena in his commentary on the Uttarasthāna of the *Aṣṭāṅgahṛdayasaṃhitā*,[270] Śrīdāsapaṇḍita,[271] Śrīvallabhagaṇi in his commentary on Hemacandra's *Nighaṇṭuśeṣa*,[272] the *Tāmbūlamañjarī*, Vardhamāna in his *Gaṇaratnamahodadhi*,[273] and Yādavjī Trikamjī in his *Rasāmṛta*.

The *Dhanvantarīyanighaṇṭu* was one of the sources of Mahendra Sūri's commentary on Hemacandra's *Anekārthasaṃgraha*,[274] Maṅkha's *Anekārthakoṣa*,[275] and Raghunāthajī's *Nighaṇṭusaṃgraha*.

Special features

The *Dhanvantarīyanighaṇṭu* is an important work with many noteworthy features.

Some interesting medicinal substances and other details are: kandodbhavā guḍūcī (1.8);[276] the distinction between mūrvā and moraṭa (1.13–16),[277] dhanvayāsa and yāsa (1.20–23); nepāla as a distinct type of kirātatikta (1.35);[278] jalamusta (1.43–44);[279] the description of paṭola and paṭolī as two separate plants (1.49–53);[280] gandhapalāśa as a variety of śaṭī (1.64–66);[281] śvāsāri (1.72)[282] as a variety of pāṭhā;

kapaṭa (1.82–83)[283] as a variety of kattṛṇa; the description of two kinds of śāli- and pṛṣṭiparṇī (1.87–92); the description of lakṣmaṇā (1.97)[284] as a white-flowered type of kaṇṭakārī; kāsaghnī (1.98–101)[285] as a variety of bṛhatī; śyonāka and aralu (1.114–116)[286] as names of one and the same tree; vijayā (1.130–131)[287] as a type of medā; two types of klītanaka (1.144–145)[288] as varieties of maḍhuyaṣṭī; dadhipuṣpī (1.153–154)[289] as a type of kapikacchū; ḍaṅgarī (1.181–182)[290] as a variety of trapusa; the distinction between āragvadha (1.219–220) and karṇikāra (1.221–222);[291] araṇī (1.225–226)[292] and jayapāla (1.227–228)[293] as varieties of dantī; kāñcanakṣīrī (1.240–241)[294] and svarṇakṣīrī (1.242–243)[295] as two distinct types of kṣīriṇī; śvetapuṣpī (1.252–253),[296] also called mṛgākṣī,[297] as a variety of viśālā; five types of balā are described: balā, mahābalā, nāgabalā, atibalā and rājabalā;[298] vṛṣamedhā;[299] śvetavacā (2.10–11)[300] as a variety of vacā; nāḍīhiṅgu (2.40–41);[301] the description of substitutes for vaṃśarocanā (2.55–56) and a variety of this substance called tvakkṣīrī or tugākṣīrī (2.57–59);[302] the description of three plants called yavānī (2.91–94);[303] the description of five kinds of candana: candana, raktacandana, kucandana,[304] kālīyaka, and barbarika (3.1–9); kāleyaka (3.27)[305] as a variety of agaru; gandhamāṃsī (3.47–48)[306] as a distinct variety of māṃsī; dama (3.66)[307] as a variety of damana;[308] girisindūra (3.103–104) as a variety of sindūra; uccaṭā (4.29–30)[309] as a variety of guñjā; cāṇākhyamūlaka (4.35–36) as a variety of mūlaka;[310] jantukārī (4.88–89);[311] māṃsarohiṇī (4.94–96);[312] kuśa is regarded as a variety of darbha and is called mṛdudarbha (4.133–134); mahānala (4.142–143)[313] as a variety of nala; three types of dūrvā are described: nīla-,[314] śveta-, and gaṇḍadūrvā (4.143–148); balāmoṭā;[315] madhukarkaṭī (5.31–32);[316] jalamadhūka (5.48–50);[317] māḍa (5.70–71)[318] as a kind of tāla; the description of four types of karañja:[319] karañja, prakīrya, udakīrya, and aṅgāravallikā (5.107–111), two types of śiṃśapā: śiṃśapā and kuśiṃśapā (5.121–123), and two types of ketakī: ketakī and suvarṇaketakī;[320] sāga;[321] jūrṇā as a kind of grain (6.108);[322] methikā (6.111–112)[323] and vanamethikā (6.113);[324] the description of khastila[325] and opium (6.120–121); marjikā as a synonym of śikhariṇī (6.301); the description of groups of drugs like svādu- (7.3–4) and sugandhitriphalā (7.5), three kinds of cāturbhadraka (7.7–12), pañcabhṛṅga (7.17), and yakṣakardama[326] (7.45–46).[327]

Noteworthy features of the sections on inorganic substances are: the names of the three types of muṇḍa(loha): mṛdu, kaṇṭa, kaḍāra, six types of tīkṣṇa(loha): kharasāra, hartāla, tāla, valla, vajjara, kālaloha, and five types of kānta(loha): bhrāmara, cumbaka, rañjaka, ālocaka, romaka (6.26–29); the eight mahārasas enumerated are: abhra, vaikrānta, mākṣīka, vimala, adrija, sasyaka, capala, rasaka (6, rasāḥ 1);[328] a series of seven dhātus (metals): gold, silver, copper, tin, zinc, lead and iron (7.87), and another series of nine dhātus: gold, silver, copper, tin, lead, tīkṣṇa, kāṃsya, pittala, kiṭṭaloha (7.95); a series of seven upadhātus: svarṇamākṣika, tāramākṣika, tuttha, kāṃsya, rīti (= pittala), sindūra, śilājatu ((7.88); two series of uparasas: (a) gandha, hiṅgula, abhra, tālaka, śilā, sroto'ñjana, ṭaṅkaṇa, rājāvartaka, cumbaka, sphaṭikā, śaṅkha, khaṭī, gairika, kāsīsa, rasaka, kaparda, sikatā, bola, kaṅkuṣṭhaka, saurāṣṭrī, (b) gandhāśman, gaira, kāsīsa, kāṅkṣī, tāla, śilā, añjana, kaṅkuṣṭha (7.92–93); a series of eight sādhāraṇarasas: kampilla, capala, gaurīpāṣāṇa, navasāgara, kaparda, vahnijāra,

girisindūra, hiṅgula, bodāraśṛṅga (7.94–95).[329]

The author

The *Dhanvantarīyanighaṇṭu* does not mention its author. As referred to before, a verse at the end of the suvarṇādivarga of the Gaṇadravyāvali states that it emanated from the mouth of Dhanvantari. It is probably for this reason that the treatise became known as *Dhanvantarīyanighaṇṭu*, and that the verses from it are quoted as spoken by Dhanvantari. Some MSS ascribe the work to Mahendrabhogika, resident of Sthāṇvīśvara[330] and son of Kṛṣṇabhogika.[331]

Date

One of the problems connected with the date of the *Dhanvantarīyanighaṇṭu* is whether the treatise as it is known to us represents a revised and enlarged version of an earlier text, called *Dravyāvali*,[332] that contained the Gaṇadravyāvali and the series of synonyms of the Nighaṇṭu only, and that has gradually developed into the *Dhanvantarīyanighaṇṭu* as it is now.[333] It has also been suggested that this process of growth continued for a long time, resulting in the incorporation of drugs that became current in later periods.[334]

Various arguments have been put forward in support of this thesis. One of these is that, at the end of the Gaṇadravyāvali, the author states that, the Gaṇadravyāvali being completed now, he is going to enumerate the synonyms in due order. Instead of doing so, a renewed salutation to Dhanvantari follows, accompanied by an introductory verse mentioning the author's intention to describe the qualities and actions of the medicinal substances. It is remarkable indeed that the author, in his introductory verses, refers to his work as the *Dravyāvali*, which is said to consist of a Gaṇadravyāvali and a series of synonyms, while allusions to the medicinal properties also occur in the introduction; their description is even an essential element of the Gaṇadravyāvali. The argument is therefore not convincing, but it remains to be explained why the series of synonyms from the *Dhanvantarīyanighaṇṭu* are quoted by later authors, whereas the verses about the properties of the drugs seem to have been less appreciated or less well known.[335] The problem whether an earlier *Dravyāvali*, of a structure similar to that of the *Aṣṭāṅganighaṇṭu*, has existed or not, depends in my opinion on a thorough study of all the manuscripts available.

Important too are the quotations from a *Dravyāvalī*. Authors and works citing from it are: Āḍhamalla, Anantakumāra,[336] the *Bhesajjamañjūsāsannaya*, Candraṭa's *Yogaratnasamuccaya*, Mallinātha's commentary on the *Amarakoṣa*,[337] Niścalakara's *Ratnaprabhā*,[338] Śivadāsasena's commentary on the *Cakradatta*,[339] and Śrīkaṇṭhadatta's *Kusumāvalī*.[340]

An argument in favour of the thesis that the *Dhanvantarīyanighaṇṭu* was subject to a process of gradual growth, resulting in accretions of a later date, is based on Kṣīrasvāmin's acquaintance with it. It has been suggested that an earlier version must have existed, since the treatise in its present shape, describing, for example, opium and zinc, cannot possibly date from the first half of the twelfth century,[341] the period in which Kṣīrasvāmin lived.[342] The structure of the *Dhanvantarīyanighaṇṭu*, especially its dealing with many drugs as varieties of some basic substance, facilitated undoubtedly the inclusion of later additions.[343]

The date of the *Dhanvantarīyanighaṇṭu*, at least its terminus ante quem, can be determined from quotations in later works. Kṣīrasvāmin's commentary on the *Amarakoṣa*, which contains numerous quotations from it, testifies to its existence in the first half of the twelfth century. It may therefore have been composed in the period between A.D. 1000 and 1100,[344] not earlier, because the *Aṣṭāṅganighaṇṭu*, which presents a less advanced stage of composition of a nighaṇṭu, can be assigned to the period 800–1000. The reference to the *Dhanvantarīyanighaṇṭu* as one of his sources by Maṅkha (first half of the twelfth century)[345] in his *Anekārthakoṣa* and the quotations in Vardhamāna's *Gaṇaratnamahodadhi* (composed in 1140),[346] Hemacandra's auto-commentary on his *Abhidhānacintāmaṇi* (twelfth century) and Aruṇadatta's commentary on the *Aṣṭāṅgahṛdayasaṃhitā* (earlier than 1200) confirm this dating. Some remarks in Kṣīrasvāmin's commentary[347] seem to imply that he considered Amarasiṃha to have been acquainted with the *Dhanvantarīyanighaṇṭu* or an earlier version of it, but this is unacceptable and not supported by internal evidence.[348]

The descriptions of Cannabis, opium and zinc in the *Dhanvantarīyanighaṇṭu* do not invalidate the date suggested above, since these substances are also mentioned by Vaṅgasena (eleventh century).

Durgadeva

Durgadeva[349] was the author of the *Riṭṭhasamuccaya* (= *Riṣṭasamuccaya*),[350] a treatise in 261 Śaurasenī Prakrit verses on signs foreboding death (ariṣṭa or riṣṭa). This primarily jyotiṣa work is also of medical interest.[351]

The riṣṭas are divided into three main groups: piṇḍattha (Sanskrit: piṇḍastha), payattha (Sanskrit: padastha) and rūvattha (Sanskrit: rūpastha) (17). Verses 18–40 discuss the piṇḍattha group, verses 41–67 the payattha group. The rūpastha group is subdivided into niyachāyā (Sanskrit: nijacchāyā; 69–84), parachāyā (Sanskrit: paracchāyā; 85–94) and chāyāpurisa (Sanskrit: chāyāpuruṣa; 95–106). The prognostic significance of dreams, divided into devadakahiya (Sanskrit: devatākathita) and sahaja, is also dealt with (107–129). Other groups of riṣṭa are: paccakkha (Sanskrit: pratyakṣa; 130–134), liṅga (135–147), paṇha (Sanskrit: praśna; 148–242).

The *Riṣṭasamuccaya* was completed at the Śāntināthabhavana in Kumbhanagara in July 1032, during the reign of one Lakṣmīnivāsa. The work was written at the instance of Durgadeva's teacher, and is based on earlier works, e.g., the *Maraṇakaṇḍikā*.[352]

Durgadeva[353] was a Digambara Jain, the pupil of Saṃjamadeva (Sanskrit: Saṃyamadeva), the pupil of Saṃjamasena (Sanskrit: Saṃyamasena), the pupil of Māhavacanda (Sanskrit: Mādhavacandra).[354] He was a resident of Kumbhanagara.[355]

Ekāmranātha

Ekāmranātha was the author of the *Āyurvedasudhānidhi*,[356] sometimes ascribed to Sāyaṇa,[357] but actually written at the request of the latter,[358] which means that it dates

from the fourteenth century. The work is referred to in Sāyaṇa's *Alaṃkārasudhānidhi.*[359]

Ekāmranātha, of Kāśyapagotra, is described as the father of Kāmeśanātha and the maternal grandfather of Śrīśailanātha, who wrote the *Praśnottaramālā.*[360]

Gaṅgādhara

Gaṅgādhara was the author of the *Gandhasāra,*[361] a treatise on cosmetics and perfumery, compiled from various sources.[362] This work may be the only comprehensive treatise on the subject that has been preserved. The art of cosmetics and perfumery, called gandhayukti or gandhaśāstra,[363] has connections with the medical science.[364]

Contents[365]

The work is arranged in three chapters (prakaraṇa), consisting of verses composed in various metres. Each chapter begins with a maṅgala addressed to Śiva. The maṅgala of chapter one also praises Gaṇeśa, Sarasvatī, and a tutelary deity called Gandhayakṣa.[366]

The contents suggest that the *Gandhasāra* was intended for use at royal courts.[367]

Chapter one (paribhāṣāprakaraṇa; ninety-one verses) deals with techniques and technical rules; subjects covered are: the six basic techniques (ṣaṭkarman) employed in gandhaśāstra (6); the description of these techniques (bhāvana, 1.7; pācana, 1.8–2.20; bodha, 2.21–22; vedha, 2.23–25; dhūpana, 2.26–29; vāsana, 2.30), accompanied by various rules about vāsana and mixtures of fragrant substances (2.31–7.81); substitutes for particular ingredients (7.82–8.85); remarks about the effect of perfumes on one's health, constitution, etc. (8.86–91).

Chapter two (gandhodakādinānāgandhopayogiprakaraṇa; 392 verses) is concerned with gandhodaka (perfumed water; 12+6 verses); mukhavāsa (perfumes used to scent the mouth and the breath; 24 verses); pārijāta (special types of mukhavāsa, e.g., scented areca nuts, called pūgakaṇa; fragrant oils; 20+32 verses); udvartana (unguents and oils used for massage; 25 verses);[368] snāna (scented water for bathing; 24 verses); jalavāsa (scented drinking water; 3+11 verses), followed by verses on fragrant unguents and paṭavāsa (perfumed powders for scenting clothes; 17 verses); mṛgarāja (the preparation of artificial musk; 2+10 verses); dhūpa (incenses; 64 verses); varti (incense sticks; 15 verses); dīpavarti (perfumed wicks for lamps; 12 verses); uddhūlana (scented powders; 7+8 verses); niryāsa (artificial resins; 7 verses); syanda (exudations; 11 verses); kusumādidruti (the extraction of oils, etc., from flowers, such as jātī, mallī, ketakī; 22 verses); gandhasaṃkramaṇa (the transmission of perfumes; 2 verses); kṛtrimadravyāṇi (the preparation of artificial perfumes, some of which with smells similar to those of natural products: artificial camphor, javādi, saffron, musk, guru, aguru, kuṣṭha; combinations and their numbers; 63 verses); dravyamelanaprakāra (mixtures of aromatic substances; 5 verses).

Chapter three (dravyanighaṇṭus tatparīkṣā ca; 120 verses) consists of a nighaṇṭu, which gives, after four introductory verses, the names of aromatic substances with their synonyms.[369] The substances dealt with are divided into a number of groups: leaves (pattravarga; 42.5–12); flowers (puṣpavarga; 42.12–44.28); fruits (phalavarga; 44.28–45.40); woody substances and rinds (kāṣṭhavarga; 45.41–46.56); roots (mūlavarga; 46.57–47.73); resinous substances (niryāsavarga; 47.74–48.82); substances derived from animals (jīvavarga; 48.83–49.91). The second part of the chapter is concerned with descriptions of substances and checks on their genuineness. The treatise ends with three concluding verses.

The only source quoted is a work called *Yogaraṅgālaya.*[370] The editor of the *Gandhasāra,* R.T. Vyas, remarks that one verse (19.10 on snāna) forms also part of Varāhamihira's *Bṛhatsaṃhitā* (76.5),[371] and that four verses on snāna (20.21–24) are related to verses found in the same treatise (76.2–4). A number of other passages of the *Gandhasāra* may have been influenced by Varāhamihira's chapter on gandhayukti,[372] or by the chapters on perfumes of the *Agni-* and *Viṣṇudharmottarapurāṇa.*[373]

Special features

Six basic techniques of gandhaśāstra are distinguished and described: bhāvana: soaking the triturated ingredients in scented water and purifying the mixture five or six times; pācana: heating of the purified materials; bodha: reviving the scent by means of particular substances (bodhakadravya); vedha: penetration, effected by means of specific substances (candraka) or bodhakadravyas; dhūpana: fumigation; vāsana: transmission of the scent of particular flowers.[374] Several varieties of pācana or pāka are described: puṭapāka, gartapāka, veṇupāka, dolāpāka, kharparapāka, haṃsapāka, kālapāka, etc.[375]

The aromatic substances are, for the purpose of combining them, divided into three classes: mitra (friendly), udāsīna (neutral), and śatru (hostile); equal quantities can be taken when the substances are mitra, half the quantity of an udāsīna substance, and a quarter of a śatru substance (6.62 and 70). Five types of gandhajala are distinguished: kalkāmbu, svarasa, kvātha, āsava, and kusumadruti (9.10–10.6). The author sometimes gives his own opinion on a disputed subject, after quoting various opinions (11.8–9). Many fragrant compounds have fanciful names. Names of pārijāta's are: vidagdhadayita (12.8), madhukarasaṃtoṣa (13.9), tripuraharadāsavallabha (13.12). Names of dhūpas are: madanapatākā (25.10), dakṣiṇapavana (25.11), candrāmoda (25.12), ugraśaraśīta (25.13), nārāca (25.18), tribhuvanasāra (27.33), kolāhala (27.41), citramṛgākṣa (28.54), etc. Names of vartis are: vasantatilaka (30.73) and māṇavakā (30.75). Some of the dhūpas are not only fragrant, but have special effects, such as: causing confusion (janamohana; 28.49), protecting pregnant women and young children (29.58), preventing possession by bhūtas and ḍākinīs (29.59), curing all kinds of fevers (29.60), and protection against noxious or poisonous insects, and wild animals (29.61–63).

A characteristic feature of the *Gandhasāra* is the frequent use of names for vegetable and other substances that are not common in āyurvedic treatises. Notable too is a preference for short or abbreviated names, such as nāga and its synonyms for nāgakesara, madhu for madhuyaṣṭi. Unusual substances and those introduced at a later date are also rather frequent.[376]

Noteworthy names[377] are: ajā (37.22),[378] amara (31.5),[379] āruṇī (46.54),[380] astra (3.23; 26.25),[381] bandhumūla (23.17),[382] barbara (7.71; 27.37; 48.77),[383] barbaraka (15.25),[384] bhramara (9.4 and 10; 18.4; 28.47; 32.1),[385] bhūta (19.14; 21.6; 31.5),[386]

cala (3.23; 26.25 and 28; 40.56),[387] caṇḍalavaṅga (30.73),[388] carmapattrī (42.7),[389] caula (17.16),[390] chāga (5.51; 7.76),[391] dānava (9.1 and 5; 34.8),[392] danuja (9.4 and 8; 19.13),[393] dhārāputrī (17.16),[394] dhūṇaka (30.76),[395] dīna (47.68),[396] ditija (31.5),[397] ekāṅgī (47.70),[398] ghūṇaka (31.12),[399] gomayākhyavṛkṣa (37.25),[400] guru (5.56; 16.4; 23.1; 37.21),[401] harita (9.3),[402] hāṭaka (16.26),[403] jiṅgikā (23.17; 36.11),[404] jūhī (44. 28),[405] kākatuṇḍa (7.50 and 74),[406] kāntā (9.8; 19.15; 21.2; 25.18; 26.20; 28.47; 30. 41; 31.1),[407] kāntālaka (36.14; 44.26),[408] kapi (18.18),[409] karkaṭa (5.50; 38.38; 40.52; 51.117),[410] kaṭhina (16.4; 19.13 and 14),[411] kauntī (7.79; 8.84; 19.16),[412] kavukā (22. 6),[413] khadrā (8.85 and 86),[414] kīreṣṭa (11.11; 36.11),[415] kokāhva (45.50),[416] kolakarṇī (48.86),[417] koraṅgī (11.15),[418] kośa (15.20),[419] kukūraka (7.71),[420] kuṇṭala (15.25),[421] kuntī (16.28),[422] lakṣmī (38.37),[423] lālā (38.39),[424] lava (13.9 and 10; 21.1),[425] lāva (12.6; 22.8; 23.1; 43.13),[426] lavalī (4.34; 31.5),[427] mada (3.25; 8.83; 9.12; 25.10; 33. 8),[428] mṛgamada (31.7; 37.20 and 21),[429] mṛganābhi (36.8),[430] nābhi (12.24; 34.9; 40. 60),[431] nārī (25.17),[432] naṭī (16.28),[433] nṛpavaktrāhva (47.68),[434] pamarā (38.36; 50. 110),[435] paraśucchinna (35.16 and 17),[436] pati (3.22; 12.21),[437] piśuna (34.9),[438] pīvara (38.33),[439] priyā (7.82),[440] rāma (6.66),[441] raṇa (33.2; 40.52),[442] rātripuṣpī (43. 21),[443] ravi (23.1; 24.3; 26.19; 27.32; 33.1),[444] sakhī (47.67),[445] saktu (29.61),[446] śālija (9.12; 24.9; 31.4; 34.8; 36.13; 37.22; 48.84),[447] śekhara (6.66; 38.36),[448] śītalikā (38. 33),[449] śṛgāla (16.5),[450] strīpuṣpa (34.9),[451] sugandhibarbarī (7.74),[452] śuka (3.24; 12. 21; 13.13; 19.12 and 16; 22.11; 23.1; 24.3 and 9; 27.33),[453] śukra (18.18),[454] śukrāhvā (7.75),[455] suvarcā (43.18),[456] suvarṇatālī (6.66),[457] svarṇatālikā (42.5),[458] tanaya (38. 38),[459] ṭaṅkaṇa (35.15),[460] tuhinī (23.16),[461] turaṅgavadanā (46.54),[462] turuṣka (22. 6; 24.5; 25.7; 40.59),[463] vānīra (31.1; 46.57),[464] vanitā (26.21),[465] varṇikā (43.18),[466] veśākhyā (16.28),[467] veśyā (17.16),[468] vihāṇī (30.74; 45.39),[469] vṛndā (9.7 and 10; 33. 7),[470] yāminī (12.21),[471] yati (38.36),[472] yavana (26.24 and 29),[473] yuvati (3.22).[474]

The author

The author mentions his name, Gaṅgādhara, at the end of the work; the same name is found in the colophons. No particulars about him are known.

Date

The *Gandhasāra* is earlier than the *Gandhavāda*, which quotes some verses from it. The terminus post quem can only be deduced from the terminology employed, the substances mentioned as ingredients, and the possible sources of the work. R.T. Vyas, the editor of the text, places it in the eleventh or twelfth century, his main argument being that the *Gandhavāda*, assigned by him to the period A.D. 1250–1300, quotes it. P.K. Gode claimed that both the *Gandhasāra* and the *Gandhavāda* have been written in the period A.D. 1300–1600.[475] The resemblances between the contents of the *Gandhasāra* and Māhuka's *Haramekhalā*[476] suggest that both works do not differ much in date. The *Gandhasāra*, however, gives the impression of being later than Māhuka's work. The data available so far suggest a date not far removed from the twelfth or thirteenth century.

Gopāladāsa Kāyastha

Gopāladāsa Kāyastha, son of Balabhadra, was the author of the *Vaidyavilāsa*.[477]

Gopāladāsa

Gopāladāsa was the author of the *Cikitsāmṛta*,[478] a huge work on āyurveda, a large fragment of which has been preserved.[479] The names of many of its chapters are recorded at the beginning of the text. The chapter on śārīra is an extract from the *Viṣṇudharmottarapurāṇa*, and that on the names and properties of drugs, in which conflicting views found in the various koṣas are reconciled on the authority of reliable koṣas like the *Śabdārṇava*, etc., is said to be taken from the author's own *Sudhābindu*.[480] Many local names are recorded in the chapter on drugs.

In the introductory verses of his treatise, Gopāladāsa enumerates a long series of authors and works that were no longer accessible, and for that reason known to him by name only: *Amṛtaghaṭa*,[481] *Amṛtavallikā*,[482] *Ārogyamañjarī*, *Bhiṣaṅmuṣṭi*,[483] Bindusāra, Bhoja, Candraṭa, *Cikitsākalikā*, *Putrotsavāloka*,[484] Ravigupta, *Siddhasāra*, *Tattvakalikā*,[485] Tīsaṭa, *Vaidyapradīpa*,[486] *Vaidyaprasāraka*, *Vyagradīnaśubhaṃkara*, *Yogaratnakaraṇḍaka*,[487] and *Yogaśata*. As authors studied by him he mentions Vābhaṭa, Vaṅga (probably Vaṅgasena), Vṛnda, Cakra and Caṅga,[488] while he also refers to a *Cakrakathā* together with its *Sārakalikā*.

The authorities and works quoted in the preserved part of the *Cikitsāmṛta* are: Amitaprabha, *Aśvinīkumārasaṃhitā*, *Āyurvedasāra*, *Bhānumatī*, Bhaṭṭāra, Bhavyadatta, Bhela, Bhoja,[489] Cakra, *Candrikā*, *Cikitsākalikā*,[490] *Devīpurāṇa*, *Dīpikā*, Dṛḍhabala, Gadādhara, Gayadāsa, Govardhana, Guṇākara, *Hārāvalī*,[491] Hārīta, Jejjaḍa, Kauśika, *Kusumāvalī*, Mādhava, *Madhukoṣa*, Nāgārjuna, Niścalakara, Parāśara, Patañjali, Pavanakuṇḍa,[492] *Ratnaprabhā*, Ravigupta,[493] *Śabdārṇava*,[494] Śrīkaṇṭhadatta, Trivikramadeva, Vābhaṭa, *Vābhaṭaṭīkā*, *Vaidyapradīpa*,[495] Vakula, Vaṅgasena, Vāpyacandra, Vijayarakṣita, *Viṣṇudharmottara*, Vṛnda, *Vṛndaṭīkā* (by Śrīkaṇṭhadatta), and *Yogaratnākara*.

The authorities most commonly quoted are Śrīkaṇṭha (23 times) and Niścala (21 times); Gopāladāsa usually agrees with Niścala against Śrīkaṇṭha when, as often, their conflicting views are recorded.

An unspecified *Cikitsāmṛta* is quoted in Govindasena's *Paribhāṣāpradīpa*.

The author

Gopāladāsa was, according to the introductory verses of the *Cikitsāmṛta*, a son of Keśava. His wife, called Saṃtoṣā, bore him two sons, Kṛṣṇadāsa[496] and Gaṅgādāsa, who may have revised their father's work after his death. Copies of the *Cikitsāmṛta* were made public by Balabhadra and Bhava, who were probably pupils of Gopāladāsa. Some colophons of the treatise indicate that the author was an antaraṅga of Vindheśvara. Gopāladāsa probably belonged to Bengal, for he records local names of medicinal plants which are still current in Bengal and he quotes many authorities who

lived there. Some verses from the *Cikitsāmṛta* prove that the author was a devotee of Viṣṇu.

Date

Gopāladāsa's date depends on that of his son Gaṅgādāsa, author of the *Chandomañjarī* and other works.[497] P.K. Gode fixed Gaṅgādāsa's date within the period A.D. 1300–1500.[498] D.Ch. Bhattacharyya discovered additional evidence enabling him to narrow down these limits. The latter examined the MS of a commentary on the *Chandomañjarī* by Jagannātha Sena Kavirāja, son of Jaṭādhara Kavirāja, the names of whose descendants up to the eighth generation were recorded by Bharatamallika in his *Candrapabhā*. As Bharatamallika composed this work about 1675, Jagannātha Sena's date falls late in the fifteenth century and Gaṅgādāsa cannot have lived later than about A.D. 1425. Moreover, Gaṅgādāsa quotes a verse from a play by Kaviśekhara Jyotirīśvarācārya, called *Dhūrtasamāgama*,[499] written during the reign of the Karṇāṭa king Narasiṃha of Mithilā, who ruled in the second quarter of the fourteenth century, which fixes the terminus post quem at about 1350. Thus Gaṅgādāsa must have written his works between 1350 and 1425. This is corroborated by a quotation from one of his treatises in Puṇḍarīkākṣa Vidyāsāgara's *Kalāpadīpikā*,[500] a commentary on the *Bhaṭṭikāvya*, composed in the late fifteenth century.

Hammīrarāja

Hammīrarāja, son of Samantarāja, is the reputed author of the *Sadyogamuktāvalī*[501] or *Yogamuktāvalī*,[502] a therapeutic treatise in 179 verses, divided into several chapters (prakaraṇa).

This Hammīrarāja is said to be the Cauhān king of Mewāṛ who ruled from 1301 to 1365, and who patronized Rāghava, the grandfather of the author of the *Śārṅgadharapaddhati*.[503]

Haripāla

Haripāla was the author of (1) a *Vaidyakaśāstra* and (2) a *Yogasāra*.[504] The *Vaidyakaśāstra* is a therapeutic treatise in 256 Prakrit verses (gāthā), completed in 1284/85.

Haripāla was a Jain, as appears from his paying homage to the Tīrthaṅkaras at the beginning of the *Vaidyakaśāstra*. At the end he refers to the *Yogasāra*, which is therefore earlier.

Hemacandra

Hemacandra, the renowned mediaeval lexicographer,[505] was the author of the *Nighaṇṭuśeṣa*,[506] written as an appendix to the vanaspatikāya section of the tiryakkāṇḍa of his *Abhidhānacintāmaṇi* (4.197–267).[507]

Contents[508]

This work, which gives only names of plants and their synonyms, is divided into six sections (kāṇḍa), which deal with trees (vṛkṣa; 3–183), shrubs (gulma; 184–291), creepers (latā; 292–335), vegetables (śāka; 336–368), grasses (tṛṇa; 369–385), grains, pulse and related plants (dhānya; 386–401). This arrangement is new and not found in other nighaṇṭus, but it should be noted that Hemacandra was not strict in applying his own scheme. The section on shrubs includes a herb like apāmārga (204–205)[509] and a climber like jyotiṣmatī (209);[510] the presence of rāsnā in this section (219) may mean that this word designated a shrub according to Hemacandra and not an orchid.[511] The section on creepers describes a herb like kaṭukā (298–299)[512] and also lotuses and water-lilies (327–334), while the section on vegetables has verses on plants not used as such (saptalā, 340cd-341ab; prasāraṇī, 341cd-342; bhṛṅgarāja, 346cd-347ab).[513]

The number of synonyms given in the *Nighaṇṭuśeṣa* is considerable, many being new.[514] Not only names of plants were recorded in it, but also names of fruits and seeds, etc.[515] In some cases Hemacandra seems to have been misinformed.[516]

Hemacandra's sources for the compilation of the *Nighaṇṭuśeṣa* are almost completely unknown, but he may have consulted the *Aṣṭāṅganighaṇṭu*.[517] The subsection on lotuses and water-lilies and the whole sixth section have been taken over almost verbatim from his own *Abhidhānacintāmaṇi* (4.226–248).

The *Nighaṇṭuśeṣa* is quoted as Haima in Bhānuji Dīkṣita's *Rāmāśramī* on the *Amarakoṣa*.[518]

Special features

Noteworthy names of plants are: amilāta and amlāta as synonyms of saireyaka[519] (245–246ab); japā (149d); kākakaṅgu (396a);[520] kalambī (359ab);[521] kāṇḍīra (= kuṭannaṭa; 382);[522] kārpāsī, vanyā (157cd); karuṇa (52cd);[523] kimpāka (155ab);[524] kolipattra (= joraṇa; 107b);[525] kṛṣṇalodhra (117b); kumārī (244); musalī (264); nalī (= grāmanalikā; 375cd);[526] pathikā (279cd–280ab);[527] rudrākṣa (141d);[528] śrīhastinī (355ab);[529] sthalagaṇḍīra (354ab);[530] tālī (182ab);[531] vapuṣā as an odourless variety of hapuṣā (270ab); vāriparṇī (335ab);[532] viṭkhadira (= arimeda; 66). Two types of amlavetasa are distinguished (59cd), an inferior (śaṅkhadrāvaka) and a superior one (bāladrāvaka); two types of bījaka are mentioned (101cd), a superior (śikhigrīva) and an inferior one (gomūtraka); a variety of vandā is mentioned that is called nandīmukha (159ab).[533]

The author and his date

Hemacandra was born in Gujarāt in 1087 or 1088. He took holy orders as a Jain monk in 1097/98, was ordained as a Sūri in 1109/10, and assumed the ecclesiastical name of Hemacandra. He spent the greater part of his life at Aṇahillapāṭaka, the ancient capital of Gujarāt, where he was patronized by the Caulukya kings Jayasiṃha (1093–1142)[534] and Kumārapāla (1142–1173).[535] His wide learning made him known as the Kalikālasarvajña. He died of sallekhanā in 1172/73.[536] Hemacandra wrote the *Nighaṇṭuśeṣa* after his *Abhidhānacintāmaṇi*, *Anekārthasaṃgraha* and *Deśīnāmamālā*.[537]

Śrīvallabhagaṇi's commentary
Śrīvallabhagaṇi was the author of a commentary (ṭīkā) on the *Nighaṇṭuśeṣa.*[538] He was a pupil of Jñānavimalagaṇi[539] of the Kharataragaccha, the author of the *Śabdabhedaprakāśaṭīkā* on Maheśvara's *Śabdabhedaprakāśa,*[540] and wrote his works at the end of the sixteenth and the beginning of the seventeenth century.[541] The MSS of the *Nighaṇṭuśeṣa* that were at the disposal of Śrīvallabha were rather defective.[542]

The commentary gives for each synonym the etymology, along the lines of Hemacandra's grammar, quotes many passages from technical works, and mentions the Rājasthānī term for each plant.[543] In some cases it adds useful information; it distinguishes, for example, between aralu and ṭuṇṭuka, regarded as one and the same by Hemacandra (85ab), and between meṣaśṛṅgī and vṛścikālī (191–192ab).

Authors quoted or referred to by Śrīvallabha are:[544] Amara, Amarasiṃha, Bhāguri,[545] Bhoja, Cāmuṇḍapaṇḍita, Candra,[546] cāndrāḥ,[547] Candranandana, Devacandrasūri,[548] Dhanvantari,[549] Gauḍa, Indra, Indu, jaināḥ, Kandalīkāra,[550] Kauśika, Kṣīrasvāmin, Madanapāla, Maheśvara, nairuktāḥ, prācyāḥ, Pūrṇatalagaṇa,[551] Śrīdhara, Vācaspati, vaidyāḥ, Vopadeva, and Vyāḍi.

The following works are quoted or referred to by him:[552] *Abhidhānacintāmaṇi, Abhidhānakoṣa,*[553] *Āgama, Amaraśeṣa,*[554] *Amaraṭīkā, Anekārthasaṃgraha,*[555] *Deśī, Deśīnāmamālā,*[556] *Kādambarī, Kavikalpadruma, Mālā, Maṅkha,*[557] *Mekhalā, Mīmāṃsābhāṣya, Nighaṇṭu, Śabdānuśāsana,*[558] *Śāśvata,*[559] Suśruta, *Vaijayantī,*[560] *Varṇanighaṇṭa,*[561] *Viśva(kośa), Viśvalocana,*[562] and *Vopadevadhātupāṭha.*[563]

Kaiyadeva

Kaiyadeva[564] was the author of (1) *Nāmaratnākara,*[565] (2) *Pathyāpathyavibodhaka,*[566] often referred to as *Kaiyadevanighaṇṭu*, and (3) *Prayogasāra.*[567]

The *Pathyāpathyavibodhaka*[568] is a large lexicon, containing more than just the names and properties of medicinal substances.

Contents[569]
The work is arranged in eight chapters (varga) with respectively 1,640 (oṣadhivarga), 147 (dhātuvarga), 112 (dhānyavarga), 449 (dravavarga), 237 (kṛtānnavarga), 260 (māṃsavarga), 503 (vihāravarga), and 310 (miśrakavarga) verses, making a total of 3,658 verses.

The oṣadhivarga deals with medicinal substances, chiefly of vegetable origin, the dhātuvarga with inorganic and some organic substances, the dhānyavarga with grains, pulse, and some other products. The dravavarga is about liquids; its section on water mentions many names of rivers (51–71). The kṛtānnavarga discusses prepared foods, and the māṃsavarga the flesh of various animals. The vihāravarga contains elaborate rules for maintaining health. The miśrakavarga is concerned with diverse subjects: groups of substances (1–19), weights and measures (24–46), medicinal preparations and allied substances (47–177), technical terms (181–215ab), poisons (218cd-226), and names of disorders (246–310).

Little is known about Kaiyadeva's sources. Some verses are taken from the *Suśrutasaṃhitā;*[570] Parāśara is quoted once.[571]

The *Kaiyadevanighaṇṭu* is quoted in Kṛṣṇadatta's commentary on Trimalla's *Śataślokī*, the commentary by Rāghavabhaṭṭa, called *Padārthādarśa* and written in 1493, on Lakṣmaṇadeśika's *Śāradātilaka,*[572] Raghunātha's *Bhojanakutūhala*, the *Śāligrāmanighaṇṭubhūṣaṇa*, and also, profusely, in Śivadatta's auto-commentary on his *Śivakoṣa*.

A *Pathyāpathyanighaṇṭu*, quoted by Kāśīrāma in his commentary on the *Śārṅgadharasaṃhitā*, may be the *Kaiyadevanighaṇṭu.*[573] Kaiyadeva may also be quoted in the *Nirṇayasindhu,*[574] Jñānavimalagaṇi's *Śabdabhedaprakāśaṭīkā,*[575] and the *Ma'din al-Ṣhifā'* by Miyān Bhūwah.[576]

Special features
Interesting medicinal plants are:[577] ābhā(babūlaka) (1.1088);[578] airāvatī (= vallīkhadira; 1.828cd–829);[579] alambuṣā (different from muṇḍī; 1.1604);[580] amlamāriṣa (1.636);[581] amlāyana (1.1525–1526);[582] āmragandhā haridrā (1.1118);[583] āri (1.828cd–829);[584] balācatuṣṭaya (1.1051–1054); bāluka (1.555);[585] bhaṅgā (3. 94);[586] bhaṅgikā (1.1636cd–1637);[587] bhāskarakarpūra (1.1287);[588] bhūmyupodakā (1.659cd–660ab);[589] brāhmaṇayaṣṭikā (= bhārgī; 1.1134);[590] brahmasomā (1. 1101cd–1102ab);[591] cauranimbūka (1.328);[592] devasarṣapa (1.976);[593] ḍolāphala (= madhūka; 1.455); elāna 1.509);[594] gajakarṇī (1.1631–1634);[595] gandhapriyaṅgu (1.1353cd–1354ab);[596] the five varieties of guggulu (1.1409cd–1412ab); gugguluśāka (1.1420cd–1421ab);[597] hastyāluka (1.1626);[598] himakarpūra (1.1284); īśāvāsa(karpūra) (1.1283–1284ab); īśvarī (= nāgadamanī; 1.778);[599] jalamāriṣa (1.637);[600] japā (1.1521cd–1522ab); jīvantaka (1.624);[601] kairātacandana (1.1259);[602] kākāṇḍolā (= kolaśimbī; 1.603);[603] kaṇṭakarañja (1.972);[604] kapitthapattrā (1.419cd);[605] karambhā (1.801);[606] karpūratulasī (1.1554);[607] kāṣṭhālu (1.1626);[608] kṛṣṇapiṇḍīta (1.904);[609] kucelikā (1.680);[610] kulatthikā (3.78);[611] kuntalī (1.651);[612] kuśiṃśapā (1.978);[613] kuṭhiñjara (1.650);[614] laṭvāka (= vanyakusumbha, 1.639);[615] lavalī (1.510);[616] madhukarkaṭī (1.262);[617] mahābāṣpa (1.805);[618] mahāpiṇḍīta (1.904);[619] māṇavaka (1.481);[620] mārkaṇḍikā (1.1002);[621] mucakunda (1.1520cd);[622] nartaka (= nīvāra; 3.103);[623] palāśikā (= suṣavī; 1.594);[624] parṇakarpūra (1.1289);[625] parṇapiṇḍīta (1.905);[626] parpaṭī (1.1428–1429ab);[627] pītadru (1.962);[628] pītakaravīra (1.1543);[629] potāśraya karpūra (1.1285);[630] pustaśimbī (1.610);[631] rājālābu (1.537);[632] rājanimbūka (1.328);[633] raktālu (1.1626);[634] rāmaṭha (= toyāpāmārga; 1.1037cd–1038);[635] śaṅkhālu (1.1626);[636] śarkarānimbūka (1.328);[637] sarpākṣī (1.691cd–692);[638] sindūrī (1.1524);[639] śirīṣikā (1.980);[640] snehapiṇḍīta (1.904);[641] śvetapiṇḍālu (1.1623);[642] śvetapiṇḍīta (1.903);[643] ṭaṅka, anya (1.408);[644] tuvaraka (1.502cd–503);[645] urumāṇa (1.507);[646] vajrakanda (1.1586);[647] vallīśimba (3.64);[648] vaṃśakuṭajī (1.893);[649] vāriparṇī (1.1467cd–1468ab);[650] vyāghrāṭaka (1.617).[651] Opium is not mentioned by Kaiyadeva.

Noteworthy terms designating diseases and various disorders occurring in the miśrakavarga (8) are: annagranthi = varāṭa = udarāmaya (254); arumṣikā = arus = rutpiśī = lomataskarī (251); avākarṇa = kālamūka (306); bahūllāsa = hikkā (256); chāta = kṛśa (308); galagaṇḍa = gaṇḍamālā (264); galāṅkura = rohiṇī (264); gaṇḍuka = vikalāṅga

(306); gudagraha = udāvarta (282); guḍaguḍāśabdaḥ saruk = āṭopa (284); hemantikā = śītalikā = masūrikā (263); hṛllāsa and utkleśa are two different disorders (288); ī-rma = arus (266); jāṭharagranthi = pṛṣṭhagranthi = guḍa = gulma (264); śuṣkā kaṇḍū = kacchū = rakasā, and bahisravā kaṇḍū = vicarcikā (258cd-259ab); kharva = kharvara = nikharva = vāmana (306cd-307a); khoḍa = jarāvara = khañja (305); kukara = kuṇi (305); mahāsphoṭa = visphoṭa (263); malāvarodha = vibandhaka (283); muṣkavṛddhi = kuraṇḍaka = vṛddhi (281); nāha = ādhmāna (283); niścāraka = niścyavana = bimbiśī = pravāhikā (255); padavalmīka = ślīpada (261); pratiśyāya is a synonym of rājayakṣman (246); tvakpuṣpa = sidhma (262); udanyā = tṛṣ (251); vardhma = antravṛddhi (281); vātāvarodha = viṣṭambha (283): vigra = kṣudranāsika (307b); vikṣobhī = syandī = śītavepathu = udarda (285cd–286); yakṣmalālā = mṛṇikā = kaphatantu = syandinī (247); yauvanakaṇṭaka (285ab).[652]

The disease called somaroga, introduced by Vaṅgasena, is referred to in vihāravarga 268.

The author

The author states in his introductory verses that he was a son of the physician Sāraṅga[653] and a grandson of Padmanābha of Bhāradvājagotra,[654] who was well versed in various sciences. Kaiyadeva may have lived in Gujarāt.[655]

Date[656]

The terminus ad quem can be determined from Rāghavabhaṭṭa's quotations from the *Kaiyadevanighaṇṭu*, which prove that the work antedates the year 1493. The oldest dated MSS were copied in 1514[657] and 1514/15.[658] The lower limit can be deduced from various indications. The references to the diseases masūrikā, vardhma and somaroga establish that Kaiyadeva is later than Mādhava, Vṛnda, and Vaṅgasena. The description of the plant called pītakaravīra[659] may indicate a rather late date, since it does not yet occur in the *Madanapāla*- and *Dhanvantarinighaṇṭu*, where only the white and red karavīra are mentioned,[660] whereas it is recorded in the *Rājanighaṇṭu*.[661] If Kaiyadeva's father was indeed the Sāraṅga who wrote the *Vīrasiṃhāvaloka* for king Vīrasiṃha, the upper limit is some decades after the year 1383. The combined evidence indicates that the *Kaiyadevanighaṇṭu* was composed in the period 1400–1450.

Kālidāsa

Kālidāsa was the author of (1) *Vaidyamanoramā*, (2) *Dhārākalpa*, and (3) *Rasasārasaṃcaya*.[662]

(1) The *Vaidyamanoramā*[663] is a concise compendium on therapeutics.

The work consists of about 660 verses and a number of prose passages,[664] arranged in twenty chapters (paṭala). The verses are written in various metres and their language is simple, but often poetical, and full of similes drawn from mythology.[665] The treatise is only concerned with therapy.[666] It contains mostly short prescriptions; complicated formulae are rare.[667]

The pattern at the base of the arrangement of the diseases is not clear, but may have been influenced by Vāgbhaṭa; chapters one to twelve are devoted to kāyacikitsā and śalya, thirteen is about gynaecology, fourteen about paediatrics, fifteen is devoted to bhūtavidyā, sixteen to śālākya and śalya, seventeen to various disorders, eighteen to guhyaroga, nineteen to viṣa, and twenty to rasāyana and vājīkaraṇa.

The materia medica is mainly of the classical āyurvedic type, mercurial and metallic preparations being rare, but Kālidāsa added a large amount of religious and magical procedures to his therapeutic armamentarium.[668] Some recipes which are designated as secret may be regarded as Tantric elements,[669] as well as the mention of the Iḍā and Piṅgalā (19.6).

Kālidāsa does not refer to his sources[670] and he is not quoted by later authors.[671]

Chapter two, dealing with raktapitta and asṛgdara, includes some verses on asthisrāva[672] and somaroga (11–13), diseases said to be characteristic of women and men respectively, which is surprising since somaroga is always described as occurring in women only. Chapter six is remarkable on account of its insistence on the importance of kapharaktātisāra (4.6–7 and 9)[673] and kapharaktapravāhaṇa (10–12).[674] Among the verses of the same chapter devoted to pravāhaṇa (10–15) there is one which mentions bimbisī (14).[675] Chapter eight has a verse on the treatment of śayyāmūtra (14). Uncommon diseases from the remaining chapters are svedamasūrikā (11.24),[676] aṣṭapadāḥ infesting the human body (11.66–67),[677] āsyalūtā (16.79–80),[678] karṇakarṇikā (17.6),[679] and liṅgalūtā (18.2–3).[680] Diseases left unmentioned are upadaṃśa, śūkadoṣa and the kṣudrarogas.

Uncommon names of plants forming part of Kālidāsa's materia medica are: akiṃcanādhipa (16.121),[681] ākulī (7.15, 19, 22),[682] alarkāri (19.49),[683] araṇyatulasī (17.12),[684] bhūmisarpa (18.22),[685] brahmadaṇḍī (18.11),[686] gandhalakṣmī (13.42),[687] haritamañjarī (6.28 and 72; 19.40),[688] jharasī (4.5),[689] kabarī (16.67),[690] kāraskara (6.3; 11.56; 12.27; 13.26),[691] karpūravallī (11.37),[692] kikkisa (7.22; 16.121),[693] kṣudranātha (16.105),[694] kṣudrapapphaṇa (7.7),[695] kukkuṭaniṣpāva (16.118),[696] nagnajit (7.17; 11.43),[697] papphaṇa (8.5),[698] phalālikā (19.55),[699] pūlāsa (7.18 and 21; 11.33),[700] rāhūcchiṣṭa (3.24),[701] raktalaśuna (6.28),[702] raktapuccha (19.55),[703] sāgarā (7.21),[704] śākinī (7.17; 16.110),[705] siṃhalī (3.8),[706] sthalaśṛṅgāṭa (7.3),[707] śvetaparṇāsa (6.30),[708] śvetapūlāsa (16.9 and 57),[709] talapoṭa (16.39),[710] triśūlī (16.60),[711] vairī (7.17),[712] vātamūlī (11.34),[713] yakṣadṛś (6.32; 8.5 and 16; 16.46), yakṣākṣī (6.31), yakṣalocana (6.6), yakṣanetra (6.15).[714] Opium (6.3: ahiphena) and mercury (11.21; 18.9, 20, 21, 25) are prescribed by Kālidāsa.[715]

(2) The *Dhārākalpa*[716] describes in twenty-seven verses a therapeutic procedure called dhārā, in which a fatty liquid, dripping from a suspended vessel, is applied to the body of a patient.[717]

The maṅgala (1) is addressed to Gaṇeśa. The work deals with the beneficial effects of dhārā (2), the types of wood for the construction of the droṇī, i.e., the wooden frame in which the patient lies down (3), the dimensions of this droṇī (4), the auspicious time for beginning the treatment and the ceremonies to be performed (5), the vessel, called karaka, used for anointing the head of the patient (6), the qualities of the attendants and

the substances to be used for the dhārā, i.e., sesamum oil, ghee, or a mixture of these (7–8), the four types of anointing the head of a patient preparatory to a dhārā with takra, i.e., diluted buttermilk (9), the takradhārā (10), vessels to be used for a dhārā (11), the treatment of a patient after the application of a dhārā (paścātkarman; 12), the effects of a takradhārā (13) and of a dhārā with sesamum oil and ghee (14), sneha and sveda (15–16), the duration of the treatment with dhārā and the prescribed height of the suspended vessel (17–18), faulty applications of a dhārā and the ways to remedy these (19–20), rules for the application of milk and dhānyāmla to the body of a patient (21), the right periods of time for the treatment and when it should not be performed (22), the after-treatment (paścātkarman; 23–24), behavioral rules for a patient during the treatment (25–26), and indications for treatment with dhārā (27).

One of the trees said to be suitable for the construction of a droṇī is called ḍolā.[718]

(3) Information on the *Rasasārasaṃcaya* by Kālidāsa is not available.

The author
No particulars are known about Kālidāsa. He may be regarded as originating from Kerala on account of his mentioning a number of medicinal plants used in that region, and because he wrote the *Dhārākalpa*, which describes a therapeutic procedure that has always been in vogue there. He calls himself a devotee of Śiva (20.24).[719]

Date
As Kālidāsa probably borrowed a formula from Soḍhala, he is later than about 1200, and his reference to the disease called asthisrāva, also mentioned in the *Ārogyacintāmaṇi*, may indicate that he belongs to the same period as Dāmodara. A terminus ad quem cannot be determined, but his therapeutic procedures and materia may well confirm that he belonged to the fourteenth century.[720]

Kalyāṇadāsa

Kalyāṇadāsa was the author of the *Śabdaratnapradīpa* or *Ratnapradīpanighaṇṭu*.

This work is a homonymic lexicon, the catchwords being recorded in the alphabetical order of their first letters (from a to kṣa).

It was composed by Kalyāṇadāsa, son of Nāmadeva and grandson of Lakṣmīdhara, who resided at Bahādurapura during the reign of Yādava Tulasīdāsa, son of Gopāla and founder of that city, possibly towards the end of the thirteenth century. The work was written at the instance of the author's guru, Kāśīrāma, a Sārasvata brāhmaṇa of Bhāradvājagotra and a renowned physician in Mathurā, son of Mathurādāsa and grandson of Gurudāsa of Argalā.[721]

Kānhaḍadeva

Kānhaḍadeva, son of Padmanābha, wrote the *Karmavipākasārasaṃgraha* or *Sāragrāhakakarmavipāka* in 1384. Karṇasiṃha, a minister of Durgasiṃha who was a son of Bhūpāla, was the partner of the author.[722]

Kedārabhaṭṭa

See: *Vaidyaratna*.[723]

Keśava

Keśava was the author of the *Siddhamantra*,[724] a nighaṇṭu in 169 verses of diverse metres, called thus since, like a siddhamantra, in spite of its very small size, it is very efficient in enabling one to know the power of drugs.[725] Keśava's son, Vopadeva, wrote a commentary on it, called *Siddhamantraprakāśa*.[726]

Contents and special features[727]
The actions of a good number of drugs are described in a new way by Keśava, who concentrates on their effects on the doṣas, leaving aside their rasa, vīrya and vipāka, which can be inferred.[728] Though the most common type of nighaṇṭu usually specifies the rasa, vīrya and vipāka of a medicinal substance first, the effect on the doṣas is mostly mentioned as well, together with a number of other properties. Bearing this in mind, the *Siddhamantra* is of a new type in exclusively taking notice of what is called the doṣaprabhāva and enlarging upon this subject, which makes it a very interesting work.

The first nine verses, called navaślokī in the commentary, are, apart from the two introductory stanzas, concerned with a short exposition on the general principles adopted in the book. In verse five the author declares that his book will resolve the problems arising from the mutually conflicting views of Caraka, Suśruta, and Khāraṇādi[729] concerning the actions of drugs. It can be concluded from verses six to eight[730] that fifty-seven types of drugs are distinguished in relation to their effects on the doṣas.[731] A special category among the actions of drugs, as a result of which the doṣas are neither alleviated nor provoked, but which may contribute to the one or the other outcome, depending on accompanying circumstances, is called udāsīna.[732]

Verse nine gives the subjects of the eight vargas into which the treatise is divided: (1) vātaghnavarga, (2) pittaghnavarga, (3) kaphaghnavarga, (4) vātapittaghnavarga, (5) kaphavātaghnavarga, (6) kaphapittaghnavarga, (7) doṣaghnavarga, (8) doṣalavarga. These vargas list drugs with an action contrary to one (1–3), two (4–6) or all three doṣas (7), whereas varga eight enumerates drugs provoking these. The treatise ends with a concluding verse and one containing information on the author.[733]

Keśava and the *Siddhamantra* are quoted by Śivadatta in his auto-commentary on the *Śivakoṣa*.[734]

An *Āyurvedaprakāśa* by Paṇḍitakeśava, who may or may not be the author of the *Siddhamantra*, is quoted by Hemādri.[735]

The author
The last verse of the *Siddhamantra* reveals the author's name, Keśava, and that of his

father, Mahādeva, the name of his teacher in medicine, Bhāskara, and finally that of the king by whom he was honoured, Siṃharāja. Additional information is given in his son's commentary on this verse: Mahādeva was a brāhmaṇa, living in Mahārāṣṭra; Bhāskara was a brāhmaṇa as well, living in Vedapura,[736] the capital of the country; Siṃharāja was the king of Daṇḍaka.[737]

Date

Since Keśava appears to have been the royal physician of Siṃharāja, who is usually identified with Siṃhaṇa or Siṅghaṇa II, one of the Yādava kings of Devagiri,[738] who reigned from A.D. 1210 to A.D. 1247,[739] he lived during the first half of the thirteenth century.[740]

Lakṣmaṇa Paṇḍita

Lakṣmaṇa Paṇḍita, a Jain, son of Vallabha,[741] was the author of the *Vaidyavallabha*.[742] He wrote this work at the request of Bukka II (1404–1406) of the Vijayanagar kingdom, to whom he was a personal physician (prāṇācārya).[743]

The *Lakṣmaṇotsava*

The *Lakṣmaṇotsava*[744] is an encyclopaedic work on medicine[745] of about 4,000 verses, arranged in sixty-four chapters,[746] and completed in A.D. 1449/50.[747]

Chapters one to twelve describe: (1) the genealogy of the author's patron,[748] (2) anatomy (śārīra), (3) dinacaryā, (4) ṛtucaryā, (5) weights and measures (paribhāṣā), (6) the purification of the dhātus (dhātuśodhana), (7) times for administering medicines (bhaiṣajyakālādinirūpaṇa), (8) dreams (svapnalakṣaṇa), (9) the examination of the pulse (nāḍīparīkṣā), (10) karmavipāka, (11) a list of diseases (sarvarogagaṇanā), and (12) the aetiology of the diseases (sarvaroganidāna). Chapters thirteen to fifty-nine deal with the diseases and their treatment, generally in agreement with Mādhava's order, but with the omission of chapters on apasmāra, hṛdroga, mūtrāghāta, aśmarī, udara, vṛddhi, vidradhi, śārīravraṇa, sadyovraṇa, bhagna, nāḍīvraṇa, upadaṃśa, śūkadoṣa, amlapitta, and masūrikā. The last five chapters are about vājīkaraṇa, rasāyana, pañcakarman, dīpanapācanādi (technical terms for particular actions of medicines), and miscellaneous subjects (miśrakavarga).[749]

Sources referred to in the introductory verses (1.39) are Atri, Bheḍa, Caraka, Nityanātha, Suśruta, and Vāgbhaṭa.

The *Lakṣmaṇotsava* is quoted in Ananta's *Pratāpakalpadruma*, Dattarāma's *Bṛhadrasarājasundara*,[750] Cāmuṇḍa's *Jvaratimirabhāskara*, and in the *Yogaratnākara*.[751] It is referred to in Nidhi's *Yogasamuccaya*.

A *Vaidyasarvasva* is also ascribed to Lakṣmaṇa, son of Amarasiṃha.[752]

Verses nine to thirty-nine of chapter one give a detailed genealogy of the author's patron Lakṣmaṇa,[753] a kāyastha of the Māthura class, residing in Mathurā, and a son of Amarasiṃha.[754] The stanzas in praise of this Lakṣmaṇa mention that he had a tank (dīrghikā) and a rest-house (dharmaśālā) constructed in Navagrāma.[755] Lakṣmaṇa's father, Amarasiṃha, held some high position at the court of Mahamandakhāna,[756] a Śāka king (śākeśa, śākottama), who was still reigning at Śrīpatha[757] when the *Lakṣmaṇotsava* was composed. With regard to the authorship of the work, it appears that a certain Vedaśarman, who derived his medical knowledge from an extensive work by Kṣemaśarman,[758] dictated it to one Puruṣottama who perhaps revised it.[759] Two more persons, courtiers of Lakṣmaṇa, may have contributed to its composition.[760]

Lohaṭa

Lohaṭa, son of Padma and pupil of Milhaṇa, who wrote the *Cikitsāmṛta*, was the author of the *Cikitsārṇavasaṃhitā*.[761] Since Milhaṇa belongs to the first half of the thirteenth century, Lohaṭa is somewhat later.

The *Madanapālanighaṇṭu*

The *Madanapālanighaṇṭu*[762] is also called *Madanavinoda*,[763] *Madanavinodanighaṇṭu*,[764] *Madanapālavinoda*,[765] *Madanapālavinodanighaṇṭu*,[766] *Madananighaṇṭu*,[767] and probably *Madanaratnanighaṇṭu*.[768] The work is attributed to king Madanapāla who, according to tradition, wrote a number of treatises on various subjects.[769] It is said to have been popular in the Northwestern provinces of India up to relatively recent times.[770] [771]

Contents[772]

This nighaṇṭu contains 1,466 verses,[773] arranged in thirteen vargas.[774] The medically relevant verses are mostly ślokas, whereas the introductory and concluding stanzas, as well as the first and the last ones of the majority of the vargas, are for the greater part in a longer metre. The verse at the end of the vargas is similar in most of them, ascribes the authorship to king Madana, and gives the name of the varga. The introductory verses praise Viṣṇu, Gaṇeśa, Sūrya and Kāśirāja, while the first verse of the remaining vargas extols Viṣṇu or Kṛṣṇa in beautiful language. The work ends with a genealogy of Madanapāla (13.92–98), followed by the standard verse concluding a varga, and, finally, a verse with the date of composition.

The text of the treatise enumerates the synonyms of medicinal substances together with their properties,[775] while at the end various other subjects are dealt with, as is usual in a nighaṇṭu. The contents are as follows: (1) abhayādivarga, vegetable drugs, beginning with harītakī (abhayā); (2) śuṇṭhyādivarga, spices and condiments, including the types of salt, etc.; (3) sugandhidravyavarga, fragrant substances; (4) suvarṇādivarga, metals, minerals, gems, etc.; (5) vaṭādivarga, trees; (6) phalādivarga, fruits; (7) śākavarga, vegetables; (8) pānīyādiguṇavarga, liquids; (9) ikṣukādirasavarṇana, products of the sugarcane and related substances, together with honey; (10) dhānyaguṇavarṇana, grains and pulse; (11) dhānyakṛtānnādināmavarga, prepared foods; (12) māṃsavarga, the flesh of various animals; (13) miśrakavarga, on dinacaryā, ṛtucaryā, and related subjects.

The *Madanapālanighaṇṭu* is quoted in the *Āyurvedābdhisāra*, Bhāvamiśra's gloss-

es on the *Bhāvaprakāśa*, Jñārasarāmaśarman's *Anupānadarpaṇa*, Kāśīrāma's commentary on the *Śārṅgadharasaṃhitā*, Chalāri Nṛsiṃha's *Smṛtyarthasāgara*,[776] Kāśīrāma's commentary on the *Śārṅgadharasaṃhitā*,[777] Khare's commentary on the *Rasaratnasamuccaya*,[778] the *Rājanighaṇṭu*, the *Śāligrāmanighaṇṭubhūṣaṇa* of the *Bṛhannighaṇṭuratnākara*, Priyavrat Śarmā's auto-commentary on his *Dravyaguṇasūtra*, Śivadatta's auto-commentary on the *Śivakoṣa*,[779] Śrīvallabhagaṇi's commentary on Hemacandra's *Abhidhānacintāmaṇi*[780] and *Nighaṇṭuśeṣa*, Trimalla's *Yogataraṅgiṇī*, Vaidyarāja's *Sukhabodha*, and Vallabhabhaṭṭa's commentary on the *Jvaratriśatī*. It was one of the sources of Raghunāthajī's *Nighaṇṭusaṃgraha*, of the chapters on materia medica of Ṭoḍara's *Āyurvedasaukhya*, the nighaṇṭu section of Trimalla's *Bṛhadyogataraṅgiṇī*, and the *Śataślokī* of Trimalla.[781]

Special features

Noteworthy names of drugs found in the *Madanapālanighaṇṭu* are:[782] ahiphena (opium; 1.345), ākāśavallī (1.262),[783] āllūka (6.66),[784] amṛta(phala) (6.59–60),[785] añjīra (6.67),[786] ārāmaśītalā (1.311),[787] asthiśṛṅkhalikā (7.83),[788] balāmoṭā (1.315),[789] bhaṅgā (1.333),[790] cauhāra (2.35),[791] chilihiṇṭha (1.346),[792] citrakandaka (7.79),[793] ḍiṇḍisa (7.32),[794] elāphala (6.65),[795] gaṇḍadūrvā (1.336),[796] ghanāgamabhavā(vallī) (7.58),[797] jasada (4.12),[798] jayapāla (1.114),[799] kāliṅga (different from kuṭaja; 7.9),[800] kāñcanī (1.334),[801] kañcukā (7.86),[802] kapitthapattrī (6.92),[803] karmaraṅga (6.85),[804] keyūra (different from hrīvera; 7.95),[805] kharbūja (6.53–54),[806] khasatila (1.344),[807] kiṅkiṇī (6.43),[808] kolaśimbī (7.33),[809] kubjakā (3.88),[810] kukkuradru (1.312),[811] kumārī (1.331),[812] kuṭīra (7.52–53),[813] laghudrākṣā (6.5),[814] madhukarkaṭikā (6.79),[815] māṃsarohiṇī (1.320),[816] parpaṭī (3.71),[817] phoga (7.42),[818] rājapaṭolikā (7.45),[819] śamīṣikā (5.66),[820] sārāmla (6.83),[821] śilemānī (6.21),[822] sindūrī (3.106),[823] sthūlakanda (7.88),[824] śvetavārtāku (7.24),[825] tirigicchi (5.63),[826] tumbī, miṣṭā (7.10),[827] ṭuṇṭuka (different from śyonāka; 7.57),[828] vallakanda (7.59),[829] vandhyākarkoṭakī (1.273–274),[830] vāsantī (3.91),[831] vaṭapattrī (1.26),[832] viṣatinduka (6.40–42),[833] and vuṣa (3.98).[834]

Especially to be noted is the presence of bhaṅgā, khasatila, ahiphena, and jasada[835] in this list. Moreover some drugs are mentioned which were also included in Vopadeva's *Hṛdayadīpaka*: asthisaṃhāraka (1.321), hijjala (5.19), babūla (5.33; = babbūla), karañjī (5.62; = karañjikā), and jalakanda (7.89).[836]

The author

The works attributed to Madanapāla were probably not written by this person of royal lineage himself, but under his patronage by authors who are only partially known. One of these was Viśveśvara Bhaṭṭa (1360–1390),[837] who composed the *Madanapārijāta*, a treatise on dharmaśāstra, sometimes ascribed to Madanapāla,[838] and the *Mahārṇava*.[839] This Guṇākara Viśveśvara, son of Vācaspati (author of the *Ātaṅkadarpaṇa* on the *Mādhavanidāna*), may have composed the *Madanapālanighaṇṭu* or have assisted Madanapāla in writing it.[840]

The genealogy of Madanapāla can be reconstructed from verses at the end of the *Madanavinoda*.[841] Madanapāla was a younger brother of Sahajapāla; both were sons of Sādhāraṇa,[842] son of Hariścandra, son of Bharahapāla,[843] son of Ratnapāla. Madanapāla was the father of two sons, who are both credited with a medical treatise; a paediatric text, *Śiśurakṣāratna*,[844] is ascribed to the elder, Pṛthvīmalla, and the *Mahārṇava*[845] to the younger, called Māndhātar. The descent of Madanapāla is confirmed by the introductory verses of the *Śiśurakṣāratna* where, however, Sahajapāla has remained unmentioned.[846] The genealogy can be supplemented by data from the *Rasaratnapradīpa* by Rāmarāja, son of Ratnapāla, a descendant of Madana. The introductory verses of this treatise state that Madana, son of Sādhāraṇa, son of Haricandra, had two elder brothers, Lakṣmaṇasiṃha, the eldest, and Sahajapāla.[847]

Madanapāla belonged to the family of Ṭāka or Ṭākā kings,[848] who ruled in Kāṣṭhā[849] on the Yamunā, to the north of Delhi.[850] Madanapāla's viruda was kaṭāramalla.[851]

Date

The last verse gives the date of composition of the work: Monday, 8 January 1375.[852]

Mādhavakavi

Mādhavakavi was the author of the *Mādhavadravyaguṇa*, also called *Bhāvasvabhāvavāda*.[853,854]

Contents

This treatise, containing 866 verses,[855] is mainly about the medicinal qualities of dietetic substances. It does not list their synonyms, but a number of drugs are also dealt with in its first chapter. The sources of the work are enumerated in two verses found only at the end of one of the MSS.[856] These sources are Bheda, Caraka, Haricandra, Hārīta, Parāśara, Suśruta, Vāgbhaṭa, and Vaideha.

Mādhava's *Dravyaguṇa* is divided into the considerable number of twenty-nine chapters (varga).[857] It is closely related to Cakrapāṇi's *Dravyaguṇa* and shares a large number of verses with that treatise, at least a quarter according to my provisional estimate, though also many differences can be noted. Mādhava's text is larger than that by Cakrapāṇi with regard to the number of verses and the number of chapters. Cakrapāṇi's dhanyavarga was, for example, broken up by Mādhava into a śāli-, kudhānya- and śimbidhānyavarga, the māṃsavarga into a māṃsa- and matsyavarga, and the madyavarga into a madya-, kāñjika-, and mūtravarga. Mādhava's large first chapter on drugs (vividhauṣadhivarga) is absent from Cakra's text, as well as the śreṣṭha-[858] and the rasavarga.

The arrangement of the drugs in the first chapter has been influenced by the *Suśrutasaṃhitā* and Vāgbhaṭa's *Aṣṭāṅgasaṃgraha* according to P.V. Sharma,[859] who also suggested that Mādhava has borrowed from the *Soḍhalanighaṇṭu*.[860]

Mādhava's *Dravyaguṇa* became a well-known work, as appears from its being quoted in Āḍhamalla's *Dīpikā* on the *Śārṅgadharasaṃhitā*,[861] Hemādri's *Āyurvedarasāyana*,[862] Kṛṣṇadatta's commentary on Trimalla's *Śataślokī*,[863] Lakṣmīrāma's commentary on the *Siddhabheṣajamaṇimālā*, Niścala's *Ratnaprabhā*,[864] Śivadā-

sasena's *Tattvacandrikā*[865] and commentary on Cakrapāṇi's *Dravyaguṇa*,[866] and Vopadeva's *Siddhamantraprakāśa*.[867] P.V. Sharma[868] claims that the *Mādhavadravyaguṇa* is copiously quoted by Śivadatta Miśra in his auto-commentary on the *Śivakoṣa*; this, however, is an error, for these quotations are from the *Paryāyaratnamālā*.[869] Vandyaghaṭīya Sarvānanda quotes, without naming Mādhava as his source, a portion of a well-known verse from the *Mādhavadravyaguṇa* in his commentary on the *Amarakoṣa*.[870] One of the verses of Mādhavakavi's work (śākavarga 29) attained great popularity and has been quoted by many commentators.[871] The whole of Mādhava's text was incorporated in Ṭoḍarānanda's *Āyurvedasaukhya*.[872]

Special features

Noteworthy is the description of the following drugs: jayapāla (vividhauṣadhi 28), bhaṅgā (vividhauṣadhi 63),[873] āphūka, i.e., opium (vividhauṣadhi 110),[874] khasatila, i.e., poppy seeds (vividhauṣadhi 111), śatāluka (phala 10),[875] madhukarkaṭikā (phala 30), a variety of date called śilemānī (phala 46),[876] amṛtaphala (phala 62), hastikarkoṭaka (śāka 31),[877] and piṇyākī (śāka 67).[878]

The author

Until comparatively recent times it was often supposed that one and the same author, called Mādhava, was responsible for the composition of the *Rogaviniścaya* and the *Dravyaguṇa*, while, moreover, *Dravyaguṇa* and *Bhāvasvabhāva* were regarded as different works.[879] N.N. Das Gupta (1936–37: 155) on the other hand, regarded, long ago, the *Bhāvasvabhāva* as written by a Mādhava who was later than the author of the *Rogaviniścaya*. The edition of the text by P.V. Sharma has dissolved the confusion and uncertainty, making it clear that *Mādhavadravyaguṇa* and *Bhāvasvabhāva* are two titles of the same work by an author who calls himself Mādhavakavi. P.V. Sharma also tried to reconstruct the genealogy of the author of the *Mādhavadravyaguṇa*. He supposed that Th. Aufrecht[880] had described Mādhava, author of the *Dravyaguṇa*, as the son of Cakradatta, grandson of Śrīkaṇṭhadatta, and father of Puruṣottama, but this is a wrong interpretation, since Aufrecht refers in this way to the genealogy of Puruṣottama, author of a *Dravyaguṇa*.[881] P.V. Sharma, proceeding on this wrong track, observed that Aufrecht's data are confirmed by a MS of Puruṣottama's *Dravyaguṇa*,[882] in which the author calls himself son of Mādhava, grandson of Cakradatta, and great-grandson of the Śrīkaṇṭhadatta who wrote commentaries on the saṃgraha's of Vṛnda and Mādhavakara. It is extremely unlikely that Puruṣottama's father was the author of the *Mādhavadravyaguṇa*, for Puruṣottama, who eulogizes Śrīkaṇṭhadatta, would not have remained silent about his father's well-known work. Moreover, the number of authors called Mādhava is exceedingly large. It must accordingly be concluded that no details concerning Mādhavakavi are known. His title kavi may, if interpreted as an abbreviation of Kavirāja, indicate that he belonged to Bengal.[883]

Date

One of the MSS utilized by P.V. Sharma for his edition of the *Mādhavadravyaguṇa* was copied in 1452.[884] The quotations by Vopadeva and Hemādri indicate that the treatise was known in the second half of the thirteenth century. Niścalakara was also acquainted with Mādhava's *Dravyaguṇa*, which establishes that it was written before 1150–1200. If it is accepted that Vandyaghaṭīya Sarvānanda knew the work and quoted from it, the date of its composition is earlier than 1159/60.[885] Due to its affinity with Cakrapāṇi's *Dravyaguṇa*, which may have been one of its main sources, it cannot be earlier than the third quarter of the eleventh century.

P.V. Sharma claims that Mādhavakavi's work dates from about 1250.[886] He disregards the quotation by Vandyaghaṭīya Sarvānanda[887] and bases his date on the following arguments. Firstly, many verses from Mādhava's work tally with verses from the *Soḍhalanighaṇṭu*. As admitted by P.V. Sharma himself, it is also possible that both authors derived their information from a common source or that Soḍhala borrowed from Mādhava.[888] Secondly, he applies the genealogy of Puruṣottama, son of Mādhava and great-grandson of Śrīkaṇṭhadatta, to the establishment of the date of Mādhavakavi. Since he places Śrīkaṇṭhadatta in the early thirteenth century, he regards Mādhavakavi as belonging to a later part of the same century.[889] As already discussed, this line of reasoning is unacceptable. Thirdly, P.V. Sharma adduces internal evidence to corroborate his chronology. This evidence, consisting of the description of jayapāla, bhaṅgā, āphūka and śilemānī (kharjūrikā) in the *Bhāvasvabhāva*, cannot be regarded as decisive, because bhaṅgā is prescribed by Vaṅgasena and āphūka is found in Soḍhala's *Gadanigraha*.[890] Moreover, the external evidence is strongly in support of an earlier date.[891]

Commentary

A commentary, called *Vaidyavallabhā*,[892] on the *Bhāvasvabhāva* was written by Meghadeva, son of Ravinābha.[893] This commentator ascribes the work to Mādhavakara and states at the end of each varga that the explanations, proposed by Meghadeva, son of Ravinābha, were redacted by Indumatī, whom Cordier[894] inclined to identify with Indu, the commentator on Vāgbhaṭa's works.

The authorities quoted by Meghadeva are: āgamikāḥ, *Candrikā* (= *Nyāyacandrikā*), Devarāja, Gadādhara, Gayacandra (= Gayadāsa), Gayin, Jejjaṭa, Kharaṇāda, *Kṛśasuśruta*, Nala, *Sārasvatanighaṇṭu*, Vāpyacandra, Viṣṇugupta, and *Yogaratna*. Since Aruṇadatta[895] was also among Meghadeva's sources, his date cannot be earlier than the second half of the twelfth century. The reference to the *Sārasvatanighaṇṭu* may mean that he is much later.

Maheśvara

Maheśvara, the author of the *Viśvaprakāśa*, *Śabdabhedaprakāśa*, and a lost *Sāhasāṅkacarita*,[896] is credited with a *Cikitsārṇava*.[897]

Maheśvara, who wrote his *Viśvaprakāśa* in 1111/12, records in its introduction that he is a son of Śrī Brahma or Brāhma and a grandson of the physician Kṛṣṇa. Among his ancestors are the physician Keśava, Vācaspati, the physician Dāmodara, the physician Śrīkṛṣṇa who was attached to the royal court at Gādhipura, and Haricandra[898] who was the court physician to Sāhasāṅka and the author of a commentary on the *Carakasaṃ-*

hitā.[899]

A medical author called Maheśvara is quoted in Herambasena's *Gūḍhabodhakasaṃgraha*, Kavikaṇṭhahāra's *Prayogaratnākara*, and (as Māheśvara) in Mādhava Kavirāja's *Mugdhabodha*.

Milhaṇa

Milhaṇa compiled his extensive *Cikitsāmṛta* at Delhi in 1224, during the reign of Śams-ud-Dīn Iltutmish. He wrote it for his pupils Gaṅgādhara, son of Deveśvara, and Lohaṭa,[900] son of Padma, being encouraged by Madana (or Mādhava) of Agrota family, the guru of Arjunavarman, king of Mālwa. Milhaṇa was the son of Kuloddhāra of the Jāyasa family, a branch of the royal family of Śūrasena; it came from Tribhuvanagiri, founded by Tribhuvanapāla.[901]

An unspecified *Cikitsāmṛta* is quoted in the *Bhesajjamañjūsāsannaya*, Govindasena's *Paribhāṣāpradīpa*, and Vācaka Dīpacandra's *Laṅghanapathyanirṇaya.*[902]

Momahaṇa

Momahaṇa was the author of the *Momahaṇavilāsa*, a treatise of 8,000 verses,[903] arranged in eleven chapters (adhikāra), on aphrodisiacs, gynaecology, and obstetrics.

The chapters deal with (1) śukravṛddhikarauṣadhādi; (2) śukrastambhakauṣadha; (3) liṅgavṛddhidārḍhya; (4) liṅgastabdhakārakauṣadha; (5) ṣaṇḍhatvanāśakauṣadha; (6) vandhyātvanāśakauṣadha, garbharakṣārthaṃ mantrauṣadhaprayogaḥ, bhagasaṃkocavidhi, strīrogacikitsādi; (7) bālarogacikitsopayogyauṣadhamantrādi; (8) bālagrahacikitsā; (9) and (10) ḍākinīcikitsādi; (11) bālagrahādinivāraṇārthaṃ katipayamantrokti, māheśvarādidhūpanirmāṇavidhi.[904]

Momahaṇa was a son of Prayāgadāsa, a kṣatriya of Kālpi, and a grandson of Harivāghala.[905]

The *Momahaṇavilāsa* was composed in 1411/12, during the reign of Mahmūd Shāh, the son of Fīrūz Shāh Tughluq (1351–1388).[906]

The *Kakṣapuṭa* by Siddha Nāgārjuna

The *Kakṣapuṭa*,[907] ascribed to Siddha Nāgārjuna, is a Tantric treatise on ṣaṭkarman.[908]

Contents[909]

The work consists of more than 500 verses and some prose,[910] arranged in twenty chapters (paṭala). The subjects are listed in chapter one: vaśya,[911] ākarṣaṇa, stambha, moha, uccāṭa, māraṇa, vidveṣa, vyādhikaraṇa,[912] paśusasyārthanāśana,[913] kautuka, indrajāla, yakṣiṇīmantrasādhana, ceṭaka,[914] añjana, divya, adṛśya, pādukāgati, guṭikā,[915] khecaratva,[916] mṛtasaṃjīvana,[917] etc. (1.11cd–13).[918]

The titles of the chapters are: (1) mantrasādhana (111 verses); (2) sarvavaśīkaraṇa[919] (47 verses); (3) rājavaśīkaraṇa[920] (25 verses); (4) strīvaśyādidrāvaṇa (73 verses); (5) pativaśya[921] (21 verses); (6) ākarṣaṇa[922] (13 verses); (7) gatistambhana[923] (65 verses); (8) sainyastambhana[924] (21 verses); (9) mohana and uccāṭana[925] (30 verses); (10) māraṇa[926] (20 verses); (11) vidveṣaṇa[927] (61 verses); (12) kautuka[928] (21 verses); (13) indrajālavidyāsādhana[929] (75 verses); (14) yakṣiṇīsādhana[930] (33 verses); (15) sarvāñjanādinidhidarśana[931] (48 verses); (16) nidhivaśīkaraṇa[932] (10 verses); (17) adṛśyakaraṇa[933] (42 verses); (18) pādukāsādhana[934] (15 verses); (19) kālavañcana (28 verses); (20) sarvasaṃkhyāsādhana (69 verses).[935]

Of some interest with regard to medicine are two parts of chapter eleven which deal with procedures bringing about disease in adversaries (among the disorders mentioned are lūtā, a type of ulcer, galatkuṣṭha, a form of leprosy, and pādasaṃkoca, a contracture of the feet), and one section of chapter nineteen which describes signs of impending death (mṛtyulakṣaṇajñāna).

The author informs us in the first chapter (6–9) that his treatise is an extract from earlier works:[936] *Śāmbhava*,[937] *Yāmala, Maula, Kauleya, Ḍāmaratantra*,[938] *Svacchandatantra*,[939] *Kākula*,[940] *Śauca, Rājatantra*,[941] *Amṛteśvaratantra*,[942] *Uḍḍīśatantra, Vātulatantra*,[943] *Ucchiṣṭa*,[944] *Siddhiśābaratantra*,[945] *Kiṅkiṇī*,[946] *Merutantra*,[947] *Kākacaṇḍeśvarīmatatantra*,[948] *Śākinītantra*,[949] *Ḍākinītantra*,[950] *Raudra, Anugrahanigraha*,[951] *Kautuka, Śalyatantra*,[952] *Kriyākālaguṇottara, Haramekhalakagrantha, Indrajāla*,[953] *Rasārṇava, Ātharvaṇa*,[954] *Mahāveda*,[955] *Cārvāka*, and *Gāruḍatantra.*[956]

The *Merutantra* is referred to again in the body of the work (1.16; 8.9). Authorities mentioned are Bhānusuta (1.56, 57, 59) and Somadevaguru (1.55).

P. Cordier asserted that the *Kakṣapuṭa* quotes the *Rudrayāmala.*[957]

Mantras abound in the *Kakṣapuṭa.*[958]

The *Kakṣapuṭa* is quoted by Ṭoḍara;[959] it is referred to in Śrīdāsapaṇḍita's commentary on the *Aṣṭāṅgahṛdayasaṃhitā.*[960] The *Rasendramaṅgala* mentions the *Kakṣapuṭa* and may contain verses from it. Many later works contain extracts from the *Kakṣapuṭa.*[961]

The *Kakṣapuṭa* is closely related to the Mantrakhaṇḍa of Nityanātha's *Rasaratnākara.*[962]

The author and his date

The date of Siddha Nāgārjuna, whose name does not occur in the body of the work,[963] has been discussed elsewhere.[964] Since the *Kākacaṇḍeśvarīmatatantra*, one of the sources of the *Kakṣapuṭa*, refers to (Siddha) Nāgārjuna as an ancient authority, this *Kakṣapuṭa* cannot possibly have been composed by the latter. The text is later than the twelfth century, the period to which the *Kākacandeśvarīmatatantra* is usually assigned and earlier than Ṭoḍara's *Āyurvedasaukhya*, which quotes it.[965]

The *Yogaratnamālā* by Nāgārjuna

The *Yogaratnamālā*[966] or *Āścaryaratnamālā*,[967] ascribed to Nāgārjuna,[968] is of some medical interest, though it is chiefly a Tantric text dealing with magic.

Contents[969]
The treatise consists of 140 polished verses[970] in āryā metre[971] about a large number of subjects[972] belonging to what is called ṣaṭkarman in Tantrism. Most of the stanzas describe procedures enabling one to achieve extraordinary aims, but the healing of bodily disorders also forms an integral part of the work.

Some of the topics are: vaśya (subjugation; 3–6); vidveṣaṇa (sowing dissension; 7–10); uccāṭana (eradication; 11–14); puruṣāntardhāna (rendering oneself invisible; 25–30); kautūhala (the production of unusual phenomena; 31–38); agnistambha (the quenching of fire; 39–42); śastrastambha (making weapons harmless; 55–58); akālagrahaṇa (causing solar and lunar eclipses; 63–67); mṛtasaṃjīvana (making dead animals alive again; 135), etc. Subjects pertaining more or less to medicine are: lomaśātana (the removal of hair; 51–54); viṣāpahāra (counteracting poisons; 73–76); viṣamajvarāpahāra (counteracting irregular fever; 77–78); vandhyāputrajanana (making a barren woman give birth to a son; 85–86); vandhyākaraṇa (producing sterility in a woman; 89–92); liṅgavṛddhi (increasing the size of the male organ; 93–96); śukrastambha (delaying ejaculation; 97–100); yoniśūlakaraṇa (causing pain in the female organs; 101); kuṣṭhakaraṇa (causing kuṣṭha to appear; 102);[973] garbhastambha (preventing delivery in a pregnant woman; 106); vṛścikaviṣāpahāra (counteracting the effects of a scorpion-bite; 108—111); bhagasaṃkocana (healing wounds of the female organs; 121); bhagodghāṭana (making the vagina accessible or inaccessible to the male; 122); bhagapravāha (causing bleeding from the female organs; 123).

Some of the recipes bear names, e.g., kalpalalanā (26) and reṇurāja (121).

At the end of the work the author, who calls himself Nāgārjuna,[974] declares that he composed it from what he heard from his guru and learnt from other śāstras. He adds that he tested all the recipes and found them effective.[975]

Special features
Noteworthy names of medicinal plants are: āhaka (62),[976] mātulānī (69),[977] śaśāṅka (23),[978] śaśija (39),[979] stabdhā (34),[980] and śūla (96).[981].

The author and his date
The name of the author's guru, Bhāskara, may be hidden in a pun in the first verse, where he is compared to the sun (bhāskara). P.V. Sharma, who accepts this interpretation,[982] regards him as identical with the Bhāskara who was the father and teacher of Soḍhala[983] and also the teacher of Keśava, which makes the Nāgārjuna who wrote the work a contemporary of these two (twelfth to thirteenth centuries)[984] and distinct from Siddha Nāgārjuna.[985] Since Guṇākara wrote his commentary on the *Yogaratnamālā* in 1239/40, the work is earlier than that date.

Commentary
A *commentary* (vivṛti)[986] on Nāgārjuna's *Yogaratnamālā* was written by Guṇākara,[987] a Śvetāmbara monk, who made use of more elaborate works of predecessors, as indicated by himself.[988] The commentary was composed in 1239/40.[989] The only sources referred to are a *Kośa* (ad 12), a *Dravyaguṇa* (ad 44), and a *Paryāya* (ad 35).

Local names of medicinal plants found in it are: bariārā (ad 85; = balā), bhelā (ad 63; = bhallātakabīja), boḍatharī (ad 111; = stabdha), boḍī kahlārī (ad 34; = stabdhā = śrāvaṇikā = muṇḍī), gojibhī (ad 78; = nāginī = govatsā),[990] iṅguvā (ad 26; = iṅgudī),[991] jeṭhīmadhu (ad 85; = madhuyaṣṭi), kakahī (ad 59; = hrībīja = bālakabīja),[992] kākahī (ad 85; = atibalā),[993] karihārī (ad 12 and 23; = halinī = lāṅgalī),[994] thohari (ad 76 and 100; = vajrī = snuhī).[995] Other words of local origin are: suramā and rasavatā (ad 23 and 29; = sroto'ñjana), aṇasalā, the word for bhūnāga (an earthworm) in Saurāṣṭra, and kecuvā, the word used for that animal in Kānyakubja. As most of these words are said to be current in Gujarāt, the commentator may have resided in that region for a long time.[996]

A Guṇākara is quoted by Gopāladāsa,[997] Nāganātha,[998] Niścalakara,[999] Vācaspati,[1000] and Vijayarakṣita.[1001] The quotations by Niścalakara and Vijayarakṣita cannot be traced in the commentary on the *Yogaratnamālā* and may derive from a commentary on the *Carakasaṃhitā*[1002] by a Guṇākara who evidently was a different person, since he lived a long time before his namesake.[1003]

The *Śiśurakṣāratna* by Pṛthvīmalla

The *Śiśurakṣāratna*,[1004] also called *Bālacikitsā*,[1005] is a work by Pṛthvīmalla, the elder brother of Māndhātar and son of Madanapāla.

Contents
The *Śiśurakṣāratna* is a treatise on kaumārabhṛtya in three chapters (prakāśa): (1) garbhiṇīgarbharakṣānirūpaṇa, on prenatal care, especially on rituals to be observed during each month of pregnancy; (2) bālakarakṣānirūpaṇa, chiefly on bālagrahas and the contrivances for averting their attacks; (3) vaidyakoktauṣadhādinirūpaṇa, on children's diseases and their treatment.

Sources, mentioned in the introduction, are the *Prayogasāra*[1006] and Suśruta. The *Bhaviṣyottara* is referred to at the beginning of chapter one. Chapter two indicates that the author borrowed from the *Kriyākālaguṇottara*, *Nārāyaṇīya* and *Prayogasāra*. Chapter three contains the Śītalāṣṭaka from the *Skandapurāṇa*.

Pṛthvīmalla and his work are quoted in the *Paraśurāmapratāpa*, a work belonging to the sixteenth century.[1007]

Special features
The order of the diseases in chapter three is not in conformity with the *Mādhavanidāna*; moreover, antravṛddhi, kuraṇḍa and vradhma are regarded as three separate nosological entities.[1008]

The author and his date
The genealogy of Pṛthvīmalla is recorded in the introductory verses.[1009]

Pṛthvīmalla's father, Madanāpala, wrote his *Madanavinoda* in 1375, which implies that the *Śiśurakṣāratna* can be assigned to the beginning of the fifteenth century.[1010]

Puruṣottama

Puruṣottama, son of Mādhava, grandson of Cakradatta, great-grandson of Śrīkaṇṭhadatta, wrote a *Dravyaguṇa*.

Puruṣottama states that his great-grandfather was the author of the second part of the *Madhukośa* and of the *Vyākhyākusumāvalī*, which establishes that he lived about A.D. 1200.[1011]

Raṇakakesarin

Raṇakakesarin was the author of a *Rugṇadīpikā* or *Yogadīpikā*.[1012]

The *Ratnakutūhala*

The anonymous *Ratnakutūhala* was composed in 1442.[1013]

Śārṅgadhara

The *Śārṅgadharasaṃhitā* by Śārṅgadhara[1014] has an important place in Sanskrit medical literature of the mediaeval period and became a popular work, which can be inferred from its inclusion in the minor triad of authoritative works called *Laghutrayī*.[1015] The changes in the theory and practice of Indian medicine since the days of the early saṃhitās are faithfully reflected in it, especially the increasing influence of alchemy, while moreover the examination of the pulse is described for the first time in this treatise.

Contents

The work consists of 2,421 verses arranged in three sections (khaṇḍa) and thirty-two chapters, though the author himself states[1016] that it contains 2,600 verses in thirty-two chapters. The first section (pūrvakhaṇḍa) has 453 verses in seven chapters, the second (madhyamakhaṇḍa) 1,284½ verses in twelve, and the third (uttarakhaṇḍa) 683½ verses in thirteen chapters. Part of the colophons, especially those of Kāśīrāma's commentary, also use the terms sūtrasthāna,[1017] śārīrasthāna[1018] and cikitsāsthāna,[1019] in agreement with the work being a saṃhitā.[1020] A short table of contents is found in the first chapter.[1021]

I. Pūrvakhaṇḍa. (1) The paribhāṣā chapter deals with some basic concepts (3–5), the contents of the work (7–13ab), weights and measures (14cd–44ab), basic rules regarding the preparation of medicines, the time of collection of fresh drugs and the parts of the plants to be used (44cd–62ab).[1022] (2) The bhaiṣajyākhyānaka chapter describes the five times of the day at which medicines should be taken (1–12), the concepts of rasa, guṇa, vīrya, vipāka and prabhāva (13–24ab), the relations between the doṣas and the seasons (24cd–30ab), and various causes of disequilibrium of the doṣas (30cd–36ab). (3) The nāḍīparīkṣādividhi chapter is about the examination of the pulse (1–9ab) and on prognostic signs (9cd–26).[1023] (4) The dīpanapācana chapter contains definitions of a series of terms designating drug actions.[1024] (5) The kalādikākhyāna chapter is about anatomy;[1025] it describes a series of bodily structures, beginning with the seven kalās (1–7ab), and proceeds with the seven receptacles (āśaya; 7cd–10), seven dhātus (11–12), malas (13–15), upadhātus (16–18), seven layers of the skin (19–22), doṣas (23–36ab), snāyus and related structures (36cd–38ab), śirās (38cd–39ab), peśīs (39cd–40ab), randhras (40cd–42), phupphusa and other viscera (43–45ab), the male genitals and the heart (45cd–47ab), and some more general subjects like respiration (48cd–50ab), āyus (50cd–51), etc. The chapter ends with verses on the evolution of the universe (sṛṣṭikrama) according to Sāṃkhya views (55–73). (6) The āhārādigati chapter is concerned with physiology (1–14ab), rules for the administration of medicines to children and related matter (14cd–20), the constitutions (21–24ab), and finally the characteristics of nidrā, mūrchā, bhrānti, tandrā, glāni, ālasya, jṛmbhā, kṣuta and udgāra (24cd–29ab). (7) The rogagaṇanā chapter enumerates the diseases recognized by Śārṅgadhara and their several types (1–204).

II. The Madhyamakhaṇḍa deals with the various pharmaceutical preparations and contains a great number of formulae. (1) The svarasādikalpanā chapter defines a svarasa, describes the way it should be prepared, and gives many examples (2–20). It proceeds in the same way with the variety of svarasa prepared by means of puṭapāka (21–43ab).[1026] (2) The first part of this kvāthādikalpanā chapter (1–149) is on kvāthas;[1027] it also enumerates the drugs belonging to two gaṇas, namely the vīratarvādigaṇa (102cd–104ab) and the varuṇādigaṇa (128–129). The second part deals with the preparations called pramathyā (150–151), yavāgū (152–153), yūṣa (154–156), pāna (157–158), uṣṇodaka (159–160), kṣīrapāka (161–164ab), annaprakriyā (164cd–166ab), vilepī (166cd–167ab), peyā and yūṣa (167cd–169ab), and maṇḍa (169cd–175ab). (3) The phāṇṭādikalpanā chapter describes the preparations called phāṇṭa (1–8) and mantha (9–13ab). (4) The himakalpanā chapter is about himas (1–9ab). (5) The kalkakalpanā chapter is concerned with kalkas (1–29ab). (6) The cūrṇakalpanā chapter (1–65ab) deals mainly with cūrṇas,[1028] but has also verses on anupāna (4–5), on some groups of drugs (16cd–19ab: jīvanīyagaṇa; 19cd–20: aṣṭakavarga) and on kṣāra (24–25). (7) The guṭikākalpanā chapter describes guṭikās, modakas and vaṭakas, which are closely related types of preparation (1–105).[1029] (8) The avalehakalpanā chapter is about avalehas (1–89ab).[1030] (9) The ghṛtatailakalpanā chapter is concerned with snehapāka (1–19ab), various types of medicated ghees (19cd–92) and oils (93–210), and also has some verses on madhuśukta (178cd–180). (10) The saṃdhānakalpanā chapter is about preparations made by way of fermentation (saṃdhāna), i.e., the types called āsava and ariṣṭa[1031] (2–3), sīdhu, etc. (4), surā, etc. (5–6), vāruṇī (7ab), śukta (7cd–10), tuṣāmbu, sauvīra, kāñjika and saṇḍākī (11–12). A number of āsavas (13–38)[1032] and ariṣṭas (39–92) are described. (11) The dhātuśodhanamāraṇa chapter describes the purification (śodhana) and killing (māraṇa) of metals and a number of other inorganic substances. After enumerating the seven metals (dhātu) distinguished by Śārṅgadhara, namely gold, silver, brass (āra), copper, lead (nāga), tin (vaṅga) and iron (tīkṣṇa), and describing their purification (1–4), the killing of each of these metals is dealt with (5–53ab). This is followed by a section on the seven upadhātus, which are mineral substances consisting of (53cd–54ab) mākṣika (pyrites), tutthaka (sulphate of copper), abhra (mica), nīlāñjana (stibnite

or antimonite, Sb_2S_3), śilā (= manaḥśilā, i.e., realgar, As_2S_2), ālaka (= haritāla, i.e., orpiment, As_2S_3) and rasaka (calamine, i.e., an ore of zinc). Procedures leading to the purification and killing of these substances are described (54cd–76ab), followed by the procedure aiming at the release of the essence of the metals (and upadhātus), the so-called sattvanirgama (76cd–78). The third part of this chapter is concerned with the purification and killing of some (semi)precious stones (79–92ab). It ends with the purification of bitumen (śilājatu; 92cd–99ab), the preparation of rust of iron (maṇḍūra; 99cd–101ab) and finally caustics (kṣāra; 101cd–104). (12) The rasakalpanā chapter mainly deals with mercurial preparations. It opens with a verse in praise of mercury (1), mentions its synonyms (2) and enumerates nine metals (3–4ab), i.e., the seven metals mentioned in chapter eleven, together with bell-metal (kāṃsyaka) and magnetic oxide of iron (kāntaloha). This is followed by the purification of mercury (4cd–13ab), sulphur (gandhaka; 13cd–15ab) and cinnabar (darada; 15cd–16ab), and the extraction of mercury from the last substance of these three (16cd–17). The nine poisons and seven secondary poisons are enumerated (18–20ab), and the so-called mukhakaraṇa of mercury is dealt with, which consists of procedures rendering it capable of 'eating' other substances (20cd–24); after this mukhakaraṇa it is called chinnapakṣa, which means that it is now regarded as a bird whose wings have been clipped. The chapter goes on with the description of gandhakajāraṇa, i.e., the digestion of sulphur by mercury (25–29ab) and various procedures for the killing of mercury (29cd–41). The remaining part of the chapter consists of recipes for a number of rasauṣadhas against various diseases (42–289).[1033] It ends with some verses on the purification of jaipāla (290) and poisons (291–294), which may be later additions because the commentators are silent on them.

III. The Uttarakhaṇḍa is about pañcakarman (chapters 1–8)[1034] and allied subjects (chapters 9–13). Its thirteen chapters deal with: (1) sneha (1–34ab); (2) sveda (1–35), said to be of four types: tāpa-, ūṣma-, upanāha-, and dravasveda; (3) vamana (1–33); (4) virecana (1–48ab);[1035] (5) basti, especially the type called anuvāsana (1–51); (6) nirūha (1–34); (7) uttarabasti (1–16ab); (8) nasya and śirovirecana (1–63); (9) dhūmapāna (1–25); (10) gaṇḍūṣa and kavala (1–21ab); (11) lepa and some other subjects; this is a long chapter of 152 verses containing many prescriptions, among which are recipes for increasing the size of the penis (liṅgavṛddhi), tightening the vagina (yonisaṃkoca); śirobasti and karṇapūraṇa are also dealt with in this chapter; (12) śoṇitasrāva, i.e., bloodletting (1–45); (13) netrakarman, i.e., the application of medicinal preparations to the eyes; this long chapter of 128 verses is concerned with seven main types of preparation applied to the eyes: seka (2–12ab), āścyotana (12cd–21ab), piṇḍī (21cd–30ab), biḍāla (30cd–37), tarpaṇa (38–52ab), puṭapāka (52cd–61), and añjana (62–74); it also contains recipes for vartis (75–87ab), and ends with those for rasakriyās and some añjanas (87cd–124).[1036]

Authors and works quoting from or referring to Śārṅgadhara or his saṃhitā are: Aghoranātha's commentary on his *Bhiṣaksarvasva*, the *Amṛtasāgara* and Jñārasarāma's version of this work, the *Ārogyāmṛtabindu*, Āśubodha Senagupta's commentary on Govindasena's *Paribhāṣāpradīpa*, Āśubodha and Nityabodha Senagupta's commentary on the *Rasaratnasamuccaya*, the *Āyurvedīya Khanijavijñāna*, Basava's *Śivatattvaratnākara*, Bhāvamiśra, the *Bheṣajasaṃhitā*, Bhoja's *Yuktikalpataru*, the *Bṛhannighaṇṭuratnākara*, Devasiṃha Viṭṭhal's *Bṛhadāsavāriṣṭasaṃgraha*, the *Dhātumāraṇa*,[1037] Dharmadatta's *Tridoṣasaṃgraha*, Gaṇanāthasena's commentary on his *Siddhāntanidāna*, Gaṇeśadaivajña's commentary on the *Muhūrtatattva*,[1038] Govindasena's *Paribhāṣāpradīpa*, Gulrājśarmamiśra's *Viśikhānupraveśavijñāna* and commentary on the *Āyurvedaprakāśa*, Haridattaśāstrin's commentary on the *Rasataraṅgiṇī*, Hariprapanna's *Rasayogasāgara*, Hariśaraṇānanda's *Kūpīpakvarasanirmāṇavijñāna*, Mādhava's *Āyurvedaprakāśa*, Mahimasamudra's *Vaidyakacintāmaṇi*, Meghamuni's *Meghavinoda*,[1039] Nidhi's *Yogasamuccaya*, the *Pākamārtaṇḍa*,[1040] the *Pāradasaṃhitā*, the *Paraśurāmapratāpa*,[1041] Rājeśvaradatta Miśra's *Svasthavṛttasamuccaya*, Rāma's *Śaṃkarākhya*, Rāmacandra's *Rāmavinoda*, the *Rasatattvavivecana*, the *Rasāyanasaṃgraha*,[1042] the *Rasoddhāratantra*, Hanumatprasāda Śarman's commentary on the *Siddhabhaiṣajyamañjūṣā*, Priyavrat Śarmā's auto-commentary on the *Āyurvedadarśana*, Śivamiśra's *Vaidyaśāstraśivānubhava*, Somadevaśarman's commentary on the *Āyurvedaprakāśa*, Ṭoḍara's *Āyurvedasaukhya*,[1043] Trimalla's *Yogataraṅgiṇī*[1044] and *Bṛhadyogataraṅgiṇī*,[1045] the *Uttaṅkadarpaṇa*,[1046] an anonymous *Vaidyakasaṃgraha*, Vaidyarāja's *Sukhabodha*, the *Vāsudevānubhava*,[1047] Vidyāpati's *Vaidyarahasya*, Viśvanātha Dvivedī's *Rasendrasambhava*, Yādavjī Trikamjī's *Rasāmṛta* and *Siddhayogasaṃgraha*, the *Yogaratnākara*,[1048] and Yogendranātha's *Āyurvijñānaratnākara*. The *Śārṅgadharasaṃhitā* was one of the sources of Āryadāsa Kumārasiṃha's *Kvāthamaṇimālā* and of the *Ma'din al-Shifā'*.

Large stretches of the *Śārṅgadharasaṃhitā* were incorporated in Bhāvamiśra's *Bhāvaprakāśa*.[1049] Vedakavi made use of it in the composition of his *Jīvānanda*. Many verses from *Śārṅgadharasaṃhitā* I.5 and 7 form part of the *Nāḍīcakra*. The unknown author of the interpolated portions of Niścalakara's *Ratnaprabhā* reproduces parts of the *Śārṅgadharasaṃhitā* and Āḍhamalla's commentary.[1050]

Śārṅgadhara was also known to Rāma, who quotes him in his *Tilakā* on the *Rāmāyaṇa*.[1051]

Rāmacandra's *Vaidyavinoda*, written in Hindī verse in 1669/70, is an adaptation of the *Śārṅgadharasaṃhitā*.[1052]

Special features[1053]

The series of the seasons consists of grīṣma, prāvṛṣ, varṣāḥ, śarad, hemanta, vasanta; they are associated with the signs of the zodiac (rāśi): grīṣma with Meṣa (Aries) and Vṛṣa (Taurus), prāvṛṣ with Mithuna (Gemini) and Karka (Cancer), varṣāḥ with Siṃha (Leo) and Kanyā (Virgo), śarad with Tulā (Libra) and Vṛścika (Scorpio), hemanta with Dhanus (Sagittarius) and Grāha (Capricornus), vasanta with Kumbha (Aquarius) and Mīna (Pisces) (2.25cd–26). Medicinal substances are said to possess only five main qualities (guṇa), namely guru, snigdha, tīkṣṇa, rūkṣa and laghu, corresponding with the five mahābhūtas; all the other qualities are included in these five (I.2.16–17ab).[1054] Two types of vīrya are distinguished, uṣṇa and śīta; the other types are included in these two (I.2.17cd–18).[1055]

The *Śārṅgadharasaṃhitā* is the earliest Sanskrit medical text that summarily de-

scribes feeling the pulse for diagnostic and prognostic purposes (I.3.1–9ab).[1056] The types of pulse found in disturbances of the doṣas are characterized by comparing them with the way of moving of certain animals. Some signs of prognostic significance are enumerated and the types of pulse occurring in a number of diseased conditions, as contrasted with those in health, are also described.[1057]

Pulse-examination had no place in Indian medicine in early periods, as is evident from the texts and attested by an important witness like I-ching,[1058] but is rarely omitted from medical treatises which are later than Śārṅgadhara.[1059] Investigations on the origin of the āyurvedic pulse-lore are wanting, though it has been suggested[1060] that it derives from Muslim medicine. Influences from Southern India should, however, not be neglected, because Siddha medicine has a highly developed and almost purely Tamil terminology for a large number of pulses.[1061]

Inauspicious and auspicious dreams are also dealt with in chapter three (I.3.14cd–26).

The actions of drugs defined in chapter four, and illustrated with examples, are: dīpana, pācana, śamana, anulomana, sraṃsana, bhedana, recana, vamana, śodhana, chedana, lekhana, grāhin, stambhana, rasāyana, vājīkaraṇa, śukrala, śukrapravartaka and -janaka, sūkṣma, vyavāyin, vikāśin, madakārin, prāṇahara, pramāthin, and abhiṣyandin.

The chapter on anatomy (I.5) presents a number of noteworthy features. The organ, usually designated as kloman and regarded as the seat of thirst, is called tila[1062] by Śārṅgadhara (I.5.8 and 45) and said to be located on the left side of the abdomen, above the seat of the digestive fire, though it is described as being present on the right side under the liver in earlier texts.[1063] Among the seven receptacles (āśaya) the chest (uras) is designated as the receptacle of living blood (jīvarakta; I.5.9), which is new. Vāta is said to be predominantly associated with rajas (I.5.26), pitta with sattva (I.5.29), kapha with tamas (I.5.33cd–34ab). The transformation of rasa into blood is said to take place in the liver (I.5.31); elsewhere (I.6.9), Śārṅgadhara asserts that this process occurs in the heart.[1064] A tenth orifice (randhra) of the body has been added to the traditional number of nine; it was interpreted as the hidden brahmarandhra on the top of the head by Āḍhamalla (ad I.5.41). The process of respiration has been described for the first time by Śārṅgadhara: "The prāṇavāyu, located in the umbilical region, touches the interior of the heart-lotus and then leaves (the body) by way of the throat, in order to drink the amṛta of Viṣṇu's place (i.e., the atmosphere). After drinking the nectar (pīyūṣa) of the atmosphere, it returns quickly, satisfying the whole body and nourishing the abdominal fire" (I.5.48cd–50ab).[1065]

The verses on Sāṃkhya mention the five tanmātras (I.5.61cd–65ab).

Blood is described as present in the whole body and as the main support of life (I.6.10cd). Its qualities are snigdha, guru, cala and svādu; when vidagdha, it is like pitta (I.6.11ab).[1066]

Śārṅgadhara's nosography (I.7) differs from the systems found in the *Mādhavanidāna* and Vāgbhaṭa's works. As shown by the following survey, it has many features of its own, although the influences of Vāgbhaṭa and Mādhava are clearly perceptible.

Śārṅgadhara enumerates twenty-five varieties of fever, whereas Mādhava distinguishes eight of them. This number of twenty-five is obtained by counting separately the five irregular fevers (viṣamajvara), which Mādhava considers to be included in saṃnipātajvara, and by subdividing Mādhava's āgantujvara into thirteen varieties. The latter group consists of (a) fevers caused by abhicāra, grahāveśa and śāpa, (b) four traumatic (ghātaja) fevers, brought about by śrama, cheda, kṣata, and dāha, (c) six abhiṣaṅga fevers, arising from kāma, bhīti, śuc, roṣa, viṣa, and auṣadhagandha. The majority of these varieties are also found in the *Mādhavanidāna*, but the four members of the ghātaja group are absent there. A closely related classification of the āgantujvaras occurs, however, in Vāgbhaṭa's works, which were obviously Śārṅgadhara's source of inspiration. The fevers called caturthakaviparyaya, vātabalāsaka and pralepaka, described by Mādhava, are not mentioned. Seven types of diarrhoea (atisāra) are listed, instead of the six of Mādhava; a variety caused by fear (bhaya), also recognized as a separate entity in the *Carakasaṃhitā* and in Vāgbhaṭa's works, has been added. A fifth type of grahaṇī, brought about by āma, is added to the four doṣaja types of Mādhava; according to the commentator Āḍhamalla, it is caused by āmavāta, while Kāśirāma mentions āma. This suggests that it may be identical with saṃgrahagrahaṇī, described in some supplementary verses of the *Mādhavanidāna*.[1067] Ajīrṇa is divided into four varieties, whereas Mādhava mentions that some authorities recognize six types; Śārṅgadhara's fourth type, called viṣājīrṇa, unknown under that name in earlier treatises, may be closely related to the rasaśeṣa form of ajīrṇa, recognized by Mādhava in agreement with the *Suśrutasaṃhitā*. Three doṣaja types of alasa are said to exist, which are unknown in the classical saṃhitās and the *Mādhavanidāna*, where this disorder is regarded as one single entity. Daṇḍakālasaka is said to be related to vilambikā, although being a separate entity; this disorder, mentioned in the classical saṃhitās, is not described in the *Mādhavanidāna*.[1068] The classification of haemorrhoids (arśāṃsi) differs slightly from that of Suśruta and Mādhava, but agrees with that of Vāgbhaṭa. The group of twenty kinds of parasites (kṛmi)[1069] is expanded by the addition of snāyuka (dracontiasis), described for the first time in Vṛnda's *Siddhayoga*, and by the description of worms living in ulcers. Kṣaya (i.e., rājayakṣman) is divided into five types, according to whether it is caused by one of the three doṣas, by all three together, or by uraḥkṣata; the last type of this series is absent from Vāgbhaṭa's works; uraḥkṣata is a separate disorder in the *Mādhavanidāna*; it is not described as such by Śārṅgadhara. Six causes of śoṣa are listed instead of the seven of the *Suśrutasaṃhitā* and the *Mādhavanidāna*; śoṣa brought about by uraḥkṣata is absent. The group of disorders of the digestive fire (agnivikāra) has been increased by the addition of bhasmaka, not yet mentioned in the *Bṛhattrayī* and the *Mādhavanidāna*.[1070] Seven types of vomiting (chardi) are mentioned, whereas Caraka, Suśruta, Vāgbhaṭa and Mādhava refer to only five types; Śārṅgadhara's sixth (caused by ghṛṇā, disgust) and seventh types (caused by pregnancy) are, however, included in the fifth one (the āgantu type) of the other treatises.

Thirst (tṛṣṇā) is of six types, as distinct from the five of Caraka and the seven of Suśruta and Mādhava, but in general agreement with Vāgbhaṭa. The varieties of mūrchā are the same as those distinguished by Caraka and Vāgbhaṭa, whereas Suśruta and Mādhava prefer a different classification. Śārṅgadhara follows Mādhava in mentioning bhrama, nidrā, tandrā and saṃnyāsa after mūrchā; he deviates from Mādhava

by including glāni in this group of related disorders, as does Suśruta. Seven types of mada are enumerated, the same as those of Caraka and Vāgbhaṭa; mada is not a separate disease in the *Mādhavanidāna*, where it is referred to in the chapters on madātyaya and unmāda. Twenty varieties of bhūtonmāda are distinguished[1071] versus seven in the *Carakasaṃhitā*, nine in the *Suśrutasaṃhitā* and *Mādhavanidāna*, and eighteen in Vāgbhaṭa's works; Śārṅgadhara's classification is related to that of Vāgbhaṭa. Four types of āmavāta are recognized; the dvandvaja varieties of Mādhava are omitted. Eight types of pariṇāmaśūla are enumerated, in contrast with the seven of the *Mādhavanidāna*; Śārṅgadhara adds an eighth type, called jaratpittabhavaśūla.[1072] The two varieties of ānāha are the same as those of Suśruta and Mādhava, but the one originating from the āmāśaya is called pratyānāha, a term that may occur here for the first time. A disease recognized by Śārṅgadhara, but rarely occurring in earlier texts and absent from the *Mādhavanidāna*, is urograha.[1073] Eight varieties of gulma are enumerated, in agreement with Vāgbhaṭa, whereas Mādhava has only five of them. The disease called somaroga, appearing for the first time in Vaṅgasena's *Cikitsāsārasaṃgraha*, is accepted by Śārṅgadhara; it is said to be of one type; the variety called mūtrātisāra is absent.[1074] A new nosological entity, distinct from vṛddhi and its varieties, may be aṇḍavṛddhi, a disorder usually known as kuraṇḍa in later treatises.[1075]

Apacī is not mentioned, probably because it was regarded as a variety of gaṇḍamālā, or even identical with it, as in Vāgbhaṭa's works.[1076] The disease commonly known as galagaṇḍa, but called gaṇḍālajī by Śārṅgadhara, is said to be of one type, whereas Suśruta and Mādhava distinguish three varieties. Four types of granthi are added to the five of Suśruta and Mādhava, namely those originating from blood, muscular tissue, bony tissue, and ulcers; the same extra varieties, with the exception of that originating from bony tissue, are also described by Vāgbhaṭa. The eight types of sadyovraṇa agree with those of Vāgbhaṭa. Two types of koṣṭhabheda are mentioned, chinnāntra and niḥsṛtāntraka.[1077] Bone fractures are divided into eight varieties in a manner that differs from that of Suśruta and Mādhava. Four types of burns are mentioned; Suśruta describes the same four types, which are absent from the *Mādhavanidāna*. Eight forms of bhagandara are distinguished: ṛju, parikṣepin and arśoja are added to the five of Suśruta, just as in Vāgbhaṭa's works.

The group of śūkadośas, which consists of eighteen varieties in the *Suśrutasaṃhitā* and *Mādhavanidāna*, has been expanded with six disorders: liṅgārśas, nivṛtta, avapāṭikā, niruddhaprakāśa, and parivartikā; this arrangement resembles that of Vāgbhaṭa, who adds nivṛtta, avapāṭikā and niruddhamaṇi. Mādhava describes liṅgārśas in the chapter on upadaṃśa, but avapāṭikā, niruddhaprakaśa (the same as niruddhaprakāśa and niruddhamaṇi) and parivartikā in the chapter on kṣudrarogas.

Śārṅgadhara's enumeration of sixty kṣudrarogas differs from the arrangement found in other treatises. Additions, in comparison with the *Mādhavanidāna*, are: koṭha,[1078] rājikā,[1079] and rakasā;[1080] these disorders are also regarded as kṣudrarogas by Vāgbhaṭa. Mādhava's eight types of visphoṭa and fourteen varieties of masūrikā, described in separate chapters of his *Nidāna*, form part of Śārṅgadhara's kṣudrarogas, in agreement with Vāgbhaṭa again. Eleven kṣudrarogas from Mādhava's list, which comprises a total of forty-two, are absent from Śārṅgadhara's series, namely ajagallikā, arūṃṣikā, avapāṭikā, dāruṇaka, indralupta, niruddhaprakaśa, nyaccha, pādadārī, palita, and parivartikā. Some of these disorders are classified differently, for example among the śūkadoṣas, bālarogas and kapālarogas. Mādhava's śūkaradaṃṣṭraka, a kṣudraroga not described in earlier works, has been accepted by Śārṅgadhara.[1081] One variety of visarpa, the one caused by agnidāha, has been added to the eight of Mādhava. The disease called śleṣmapitta, described in a verse probably added later to Mādhava's chapter on amlapitta, is not mentioned.

Śārṅgadhara lists eighty types of vātaroga, forty of pittaroga, and twenty of kapharoga, related to those mentioned in the *Carakasaṃhitā*,[1082] but without being identical.[1083] A list of ten raktarogas, completely different from that found in the *Carakasaṃhitā*,[1084] forms also part of Śārṅgadhara's nosological system; these ten diseases caused by blood are: gaurava (a feeling of heaviness), raktamaṇḍalatā (the appearance of round, red patches on the skin), raktanetratva (red eyes), raktamūtratā (red-coloured urine), raktaniṣṭhīvana (spitting of blood), raktapiḍakādarśana (the appearance of red boils), auṣṇya (a feeling of heat), pīḍā (pain), and pāka (inflammation or suppuration).

The diseases of mouth and throat (mukharoga) are seventy-four in number and arranged in the same manner as in Vāgbhaṭa's works, with one particularity, namely the omission of gaṇḍālajī, mentioned separately by Śārṅgadhara. The diseases of the ears (karṇaroga) comprise thirty disorders, the same twenty-five as distinguished by Vāgbhaṭa, and five extra ones, located at the base of the ear (karṇamūla). These five, arising from vāta, pitta, kapha, saṃnipāta and rakta, are not included in the group of karṇarogas in earlier works. Śārṅgadhara's ten diseases of the head (śiroroga) are the same as those of Vāgbhaṭa. He also follows Vāgbhaṭa in enumerating nine diseases of the scalp (kapālaroga): upaśīrṣaka, arumṣikā, vidradhi, dāruṇa, piḍikā, arbuda, indralupta, khalati, and palita. Mādhava regards six among these as belonging to the kṣudrarogas, does not describe upaśīrṣaka, and considers indralupta and khalati to be synonyms. The eye diseases (netraroga) are the same again as those recognized by Vāgbhaṭa; their number is ninety-four.

The five puṃstvarogas (sexual perversions) and eight śukradoṣas have been borrowed from the *Suśrutasaṃhitā*. The women's diseases (strīroga) consist of eight ārtavadoṣas, borrowed from Suśruta, and the usual four varieties of pradara. The twenty yonirogas of Śārṅgadhara are composed of a mixture of the disorders of this name recognized by his predecessors. The group of eight garbharogas differs from similar groups in earlier treatises and consists of upaviṣṭakagarbha, nāgodara, makkalla, mūḍhagarbha, viṣkambha, gūḍhagarbhaka, jarāyudoṣa, and garbhapāta; two disorders described by Mādhava, yonisaṃvaraṇa and saṅga, are absent. The three strīdoṣas, caused by circumstances which make women suffer mentally, form an interesting group, consisting of afflictions induced by an awkward (adakṣa) husband, a female rival (sapatnī), and fate (e.g., widowhood).[1085]

The group of children's diseases (bālaroga) comprises twenty-two disorders, a larger number than found elsewhere; new members of this group are gudapāka (inflammation of the anal region)[1086] and śayyāmūtra (enuresis nocturna).[1087] Four types of bālagraha were added by Śārṅgadhara to the usual number of eight, namely

Skanda,[1088] Viśākha,[1089] Pitṛgraha and Śuṣkarevatī; the name of the demon (graha), usually called Skandāpasmāra, is Svagraha in the *Śārṅgadharasaṃhitā*.[1090]

A new group of disorders is formed by the forty-two diseases of the feet (pādaroga), the members of which are not enumerated separately, having already been mentioned under various headings; vātarakta, ślīpada and some kṣudrarogas belong to this group, according to the commentator Āḍhamalla. Śārṅgadhara distinguishes moreover fifteen complications (upadrava) of pañcakarman, and eighteen brought about by the injudicious application of sneha, sveda, dhūma, gaṇḍūṣa, añjana, and tarpaṇa. Four kinds of upadrava are caused by heat, cold, śalya, and caustics (kṣāra).[1091] Śārṅgadhara also mentions disorders originating in the three types of poison, the seven metals (dhātu), seven upadhātus, and seven upaviṣas; this list is completed by disorders brought about by poisonous substances in polluted water and on weapons besmeared with a poison. Itching caused by kapikacchū,[1092] polluted water and sūraṇa[1093] is also referred to, as well as swelling caused by bhallāta.[1094] The last disorder mentioned is mada, which consists of four varieties, effected respectively by pūga,[1095] bhaṅgā,[1096] akṣa[1097] and kodrava,[1098] along with other ones induced by the ingestion of various noxious vegetable substances.

The particularities of Śārṅgadhara's nosological system show that his arrangement of the diseases owes much to Mādhava, but that he chose Vāgbhaṭa as his main guide with respect to the subdivision of nosological entities. Neither Mādhava nor Vāgbhaṭa were followed blindly. Minor deviations from Mādhava's order are rather common,[1099] as are subdivisions which disagree with those of Vāgbhaṭa. Noteworthy features of Śārṅgadhara's nosology consist of additions and omissions when compared with the schemes of Caraka, Suśruta, Vāgbhaṭa and Mādhava. Additions are snāyuka, bhasmaka, two types of bhūtonmāda, jaratpittabhavaśūla, urograha, somaroga, aṇḍavṛddhi, visarpa caused by agnidāha, the five varieties of karṇamūlaroga, the three types of strīdoṣa, śayyāmūtra, and four types of bālagraha.

Śārṅgadhara's arrangement of the diseases was rarely adopted by later authors, but did not fall into complete oblivion, since its influence is detectable in Vedakavi's *Jīvānanda*.

Other special features of the *Śārṅgadharasaṃhitā* are the following. Two gaṇas, the members of which are enumerated by Śārṅgadhara, namely the vīratarvādigaṇa (II.2.102cd–104ab) and varuṇādigaṇa (II.2.128–129), are modifications of gaṇas of the same name found in Suśruta (Sū.38.10 and 12). Drugs having an effect on male sexual functioning are classified in seven groups: vājīkaraṇa, śukrala, śukrapravartaka and -janaka, śukrapravartana, śukrarecana, śukrastambhaka, and śukraśoṣaṇa (I.4. 14cd–18ab).

New drugs introduced by Śārṅgadhara are: elīya (II.12.56);[1100] kuṭhāra (II.11.45), also called kuṭhāracchinnā (II.11.47; 12.279);[1101] jvālāmukhī (II.11.14; 12.42, 57, 87);[1102] pātālagaruḍī (II.11.44);[1103] rudantī (I.4.14);[1104] sthūlababbūlikā (II.1.12).[1105] Vegetable substances that had recently been incorporated in the āyurvedic pharmacopoeia are repeatedly prescribed, such as ākārakarabha (II.6.162; 12.56), also called ākallaka (II.10.23), and opium (ahiphena; I.4.20; II.6.163; 12.20 and 230). Preparations from poisonous plants like dhattūra (II.12.135 and 191; III.11.130; = dhūrta: II.12.114; = unmatta: II.12.196), vatsanābha (II.12.117), and viṣamuṣṭi (II.12.196) are not uncommon. *Cannabis* (bhaṅgā, vijayā) rather often occurs in prescriptions (I.4.20; 7.203; II.6.72; 12.256).[1106] Some new uses of single and compound drugs are mentioned by Śārṅgadhara.[1107] A therapeutic technique, already described in the *Carakasaṃhitā* (Ci.23.66) and consisting of the rubbing of drugs into an artificial wound on the head, has been adopted and developed by Śārṅgadhara; he employs this type of treatment in cases of saṃnipāta and snake-bite (II.12.121–127ab), as well as in several vāta diseases (III.11.101cd–102).

The purification and killing of metals, minerals and gems, as well as the processing of mercury for internal use, is elaborately described by Śārṅgadhara, whose saṃhitā is the earliest medical treatise presenting a detailed account of these techniques. Metallic and mercurial preparations figure more prominently in Śārṅgadhara's work than in those preceding it. The number of metals (dhātu) was increased to seven by Śārṅgadhara (II.11.1) in order to make them agree with the seven tissues of the body (also called dhātu), though, in addition, a number of nine metals, becoming current later and brought into relation with the nine planets,[1108] is already met with in his saṃhitā (II.12.3–4ab). The traditions connected with the Siddhas were known to Śārṅgadhara (II.12.158).

The author

No particulars on the author of the *Śārṅgadharasaṃhitā* are known, apart from his name, mentioned in one of the introductory verses (I.1.2) and at the end of the work (III.13.127). The colophons usually call him the son of Dāmodara. The maṅgalācaraṇa and some other verses[1109] show him to be a Śaiva.

It has frequently been assumed,[1110] on insufficient grounds,[1111] that the authors of *Śārṅgadharasaṃhitā* and *Śārṅgadharapaddhati*[1112] are one and the same person.[1113] This identity has rightly been disputed by P.V. Sharma[1114] and Atrideva,[1115] who both stressed that the two works are very dissimilar and that the elaborate genealogy of the author, found in the *Paddhati*,[1116] is absent from the saṃhitā.

Moreover, the author of the *Paddhati* nowhere refers to himself as a medical expert, nor displays his knowledge of medicine.[1117]

Atrideva adduced some examples of subjects, dealt with in the *Paddhati*, which are not treated in the saṃhitā, but might well have been present there if both works had been written by one author, such as the tempering of steel and a recipe for turning grey hair black again. These arguments, taken together, certainly justify the view that *Paddhati* and saṃhitā were written by two different authors.

This conclusion is sometimes thought to be confirmed by two chronological considerations,[1118] namely the supposed existence of a commentary on the *Śārṅgadharasaṃhitā* by Vopadeva, who lived in the second half of the thirteenth century, and a quotation from the saṃhitā by Hemādri, who was a junior contemporary and a friend of Vopadeva. Since the *Śārṅgadharapaddhati* has been compiled in A.D. 1363,[1119] its author lived considerably later than the Śārṅgadhara who wrote the saṃhitā, if credit is given to the considerations just mentioned. As I shall point out in the section on the date of the *Śārṅgadharasaṃhitā*, the commentary of Vopadeva

and Hemādri's quotation can be left out of consideration in this context, which does not affect the conclusion that saṃhitā and *Paddhati* were composed by two different authors, but has its consequences for the chronological position of the saṃhitā.

P.V. Sharma suggested [1120] that the author of the *Śārṅgadharasaṃhitā* might be the same as Śārṅgadeva, who wrote the *Saṃgītaratnākara* [1121] and *Adhyātmaviveka*, [1122] and who held an important office at the court of Siṅghaṇa [1123] (A.D. 1210–1247), [1124] one of the kings of Yādavagiri. The major obstacle to this hypothesis consists of Śārṅgadeva's genealogy, because it is stated in his *Saṃgītaratnākara* [1125] that he was a son of Soḍhala and grandson of Bhāskara, whereas the author of the *Śārṅgadharasaṃhitā* is said to be a son of Dāmodara. P.V. Sharma solves this problem by supposing that the authors of saṃhitā and *Paddhati* were already regarded as identical in early times, as a result of which the author of the saṃhitā is presented as a son of Dāmodara in the colophons of a number of MSS. Arguments favouring the identity of Śārṅgadeva and the author of the saṃhitā are, in P.V. Sharma's opinion, firstly Śārṅgadeva's expert knowledge of medicine, [1126] displayed, especially in the field of anatomy, in his *Saṃgītaratnākara* and *Adhyātmaviveka*, and, secondly, that the *Śārṅgadharasaṃhitā* shows the influence of the *Gadanigraha* of Śoḍhala, Śārṅgadeva's father. Almost needless to say, this hypothesis is very weak, because there was no reason at all to confuse the authors of saṃhitā and *Paddhati*, while, moreover, the attribution of the *Gadanigraha* to the Soḍhala who was Śārṅgadeva's father is completely arbitrary, though not impossible with regard to chronology. P.V. Sharma, who expresses some doubt as to the correctness of his hypothesis, concludes that Śārṅgadeva was either the same as the author of the *Śārṅgadharasaṃhitā* or a different person living in the same age. [1127]

Date

The terminus post quem of Śārṅgadhara can be inferred from information contained in the commentaries on his saṃhitā by Āḍhamalla and Kāśīrāma. The former has recorded that Śārṅgadhara consulted a commentary on Vṛnda's *Siddhayoga*, [1128] while the latter has mentioned that Śārṅgadhara was acquainted with Tīsaṭa's work. [1129] Kāśīrāma's commentary contains two remarks [1130] which imply that Śārṅgadhara made use of Vaṅgasena's work, one of these [1131] pointing to his posteriority to Trivikrama, who evidently commented upon Vaṅgasena's treatise, and finally a remark [1132] suggesting that Vopadeva preceded Śārṅgadhara.

These data, if reliable, lead to the conclusion that Śārṅgadhara cannot have lived earlier than about 1300, which conflicts with P.V. Sharma's [1133] and Atrideva's [1134] claims that he is quoted by Hemādri. [1135] The latter's so-called quotation from Śārṅgadhara can, however, be disregarded as a clue to his date, because no source is mentioned by Hemādri and, moreover, only the first of the two verses quoted is found in the *Śārṅgadharasaṃhitā*.

The often repeated [1136] claim that Śārṅgadhara must be earlier than Vopadeva, because the latter wrote a commentary on the former's saṃhitā is not valid since such a commentary has never been written. The error derives from Weber's Catalogue of Berlin MSS, where MS Nr. 937 is described as containing the *Dīpikā*, called *Gūḍhārthadīpikā*, composed by Vopadeva, son of Keśava, on the pūrvakhaṇḍa of

the *Śārṅgadharapaddhati*. [1137] As those parts of the text which were printed in the catalogue verbally agree with Kāśīrāma's commentary, called *Gūḍhārthadīpikā*, the MS evidently contains the first part of that work.

Indications with regard to Śārṅgadhara's terminus ante quem are provided by the authors and works referring to or quoting him. The earliest of these are the *Paraśurāmapratāpa*, dating from the first half of the sixteenth century, [1138] and Gaṇeśadaivajña's commentary, composed in 1528. [1139]

The evidence collected shows that the author of the *Śārṅgadharasaṃhitā* lived later than Trivikrama (of unknown date), who wrote a commentary on Vaṅgasena's treatise (A.D. 1050–1100), or even later than Vopadeva (second half of the thirteenth century), if Kāśīrāma's remarks are trustworthy and correctly interpreted, and before the author of the *Paraśurāmapratāpa* and Gaṇeśadaivajña. So he should be placed in the period 1100–1500 or 1300–1500. Śārṅgadhara may have borrowed the definitions of a series of technical terms from Vaṅgasena, [1140] which would corroborate his posteriority to the latter. P.V. Sharma's assertion [1141] that Śārṅgadhara used Soḍhala's *Gadanigraha* as a model for his work, which would prove that Śārṅgadhara is later than Soḍhala, is not convincing, because the order of the pharmaceutical preparations in the two works differs considerably, while, moreover, identical prescriptions seem to be absent, though a restricted number of recipes from the *Śārṅgadharasaṃhitā* also occur in Vaṅgasena's treatise and the *Cakradatta*. [1142] The much more developed stage of rasaśāstra in Śārṅgadhara's work, compared with Vaṅgasena's treatise and the *Cakradatta*, as well as the changes in the pharmacopoeia, are indicative of a considerable interval of time between the latter two works and the *Śārṅgadharasaṃhitā*.

Though the *Śārṅgadharasaṃhitā* has usually been placed in the thirteenth century, [1143] it might well be preferable to assign it to the fourteenth century, which would agree with the data provided by Kāśīrāma's commentary. [1144]

Commentaries

Three commentaries are known: [1145] (1) the *Pradīpikā* by Āḍhamalla; [1146] (2) the *Gūḍhārthadīpikā* by Kāśīrāma; (3) the *Āyurvedadīpikā* or *Gūḍhāntadīpikā* by Rudrabhaṭṭa.

(1) Āḍhamalla's commentary, called *Pradīpikā* in its introductory verses and *Śārṅgadharadīpikā* in the colophons, is the oldest one. In the introduction the author traces his descent in saying that he is of Śrīvāstavya lineage, [1147] that his grandfather was called Cakrapāṇi [1148] and his father Bhāvasiṃha. [1149] He adds that both were physicians and that Bhāvasiṃha, who was an expert in Suśruta, earned great fame and was honoured by the king. Āḍhamalla lived in Hastīkāntapurī, [1150] situated on the banks of the Carmaṇvatī, [1151] during the reign of Jaitrasiṃha. [1152] The introductory verses also indicate that Āḍhamalla, who refers to himself as knowing only a restricted number of treatises (nibandha), based his commentary on the words of his teacher. [1153] Āḍhamalla's devotion to Kṛṣṇa can be inferred from the concluding verses. One of these concluding verses presents a lacuna, which is especially unfortunate because it may either refer to another work by the same author, a pañjikā in 11,000 verses, or

contain information on the date of completion of Āḍhamalla's commentary.

Authors and works quoted or referred to by name in Āḍhamalla's commentary are: Agniveśa (I.7.77cd–79ab;[1154] III.13.125–128), Amara (I.1.1.), asmadīyasampradāya (III.11.122cd–128ab), Bhāluki (III.3.9–11), *Bhānumatī* (III.5.31; 6.23), Bhaṭṭārakahariścandra (III.11.108–110ab), Bhoja,[1155] Bhṛgu (III.13.125), Cakra (II.2.43–75; 7.13–16; 9.58–60ab; III.3.14; 5.33; 10.13cd–19ab; 11.108–110ab), *Cakradatta* (II. 8.10–22ab; III.4.18cd–20ab; 5.7cd–15ab; 6.8–11ab and 24cd–28ab; 8.14cd–15 and 24–32ab; 10.1–5), Cakṣuṣyeṇa (I.7.154), Caraka (often), *Dravyaguṇāvalī*[1156] (I.4.1a-b), Dṛḍhabala (I.7.105–115ab; III.3.14 and 30; 4.26cd–33; 5.7cd–15ab and 22–30; 6.11; 8.2 and14cd–15), Gadādhara (I.7.153–171ab), Gayadāsa (I.7.171cd–172ab), *Guṇāvalī*[1157] (II.10.7cd–10ab), Hārīta (III.13.125), Hiraṇyākṣa (I.7.189–191ab), Jaijjaṭa (I.1.6; III.3.14), *jyotiḥśāstra* (I.3.11cd–13ab), Kārttika (III.10.13cd–19ab), Kārttikācārya (I.7.151cd–152), kāśmīrāḥ (III.8.2), Kāśyapa (I.7.196cd–202), Kharanāda (II.9.142–146ab), Khāraṇādi (III.4.12), Mādhava (often), Mādhavācārya's *Svasaṃgraha* (I.7.149cd–151ab), *Mādhavanidāna* (I.7.80cd–82ab), *Mādhavasaṃgraha* (I.7.153–171ab), *Mūlabhārata* (I.5.48cd–50ab), Nāgārjuna (II.11.44–45), *Nāmamālā* (II.1.12), *Nāmasaṃgraha* (I.7.139), *Nighaṇṭu* (II.6.9cd), Nimi (I.7.153–171ab), Pārāśara (III.6.3), *Paribhāṣā* (II.10.3), Ratnaprabhākāra, i.e., Niścalakara (III.8.14cd–15), Ravigupta (III.8.2), *Saṃgraha* (I.7.115cd–121), Sanaka (I.7.38–39), Śārṅgadhara (often), *Śivamata* (II.11.1), Sudāntasena (III.2.6), Suśruta (often), suśrutādhyāyinaḥ (II.6.23–24ab), *tantrāntara* (often), Tīsaṭa (Trisaṭa ad II.6.84; Tīsaṭa ad III.4 1cd–3a-b),[1158] Vāgbhaṭa (often), *Vaidyālaṃkāra* (III.2.31ab), *Vaidyaprasāraka* (II.7.13cd–15), Videha,[1159] *Viṣṇusaṃhitā* (II.6.81–89),[1160] *Vṛddhabhoja* (I.7.27cd–28), *Vṛddhakāśyapa* (I.7.180d–182ab), Vṛnda (II.8.10–22ab; III.3.14), and Vṛndaṭippaṇakāra (II.8.14).

According to P.V. Sharma[1161] the *Rasaratnasamuccaya* is repeatedly quoted, which is hard to prove, since this work contains many verses from earlier treatises and is not mentioned by name.[1162]

A large percentage of Āḍhamalla's quotations is not referred to a source mentioned by name. The *Mādhavanidāna* is repeatedly quoted anonymously.[1163]

Āḍhamalla consulted many manuscripts;[1164] he was interested in the correct readings of Śārṅgadhara's text, as shown by the variants recorded in his commentary and the additional verses occurring in part of the MSS at his disposal.[1165]

Medicinal plants are occasionally described;[1166] many synonyms are recorded, as well as vernacular names.[1167]

Āḍhamalla's alchemical knowledge appears from his comments on chapters eleven and twelve of the Madhyamakhaṇḍa. He mentions among the implements of an alchemist's workshop two types of tulābhājana (tulā and ghaṇṭaka), three types of khalva (pāṣāṇa-, loha- and tāmrakhalva), two types of kaṇḍanī (śilā- and pāṣāṇakaṇḍanī), three types of koṣṭhikā (jāla-, kharpara-, bhūmikoṣṭhikā), two types of bhastrikā (bellows; karpara- and mukhabhastrikā). Mūṣās are divided into apakva and pakva types; the vajramūṣā is apakva; pakva types are gostanā, andhamūṣā, nalikāmūṣā, sampuṭīmūṣā, ḍholīmūṣā, iṣṭikāmūṣā, kṣāramūṣā, saindhavādilavaṇamūṣā, kharparamūṣā, kokilākhyamūṣā, etc. Two types of saṇḍiśa are mentioned (pattra- and kākamukhasaṇḍiśa). Four types of puṭa are acknowledged: tuṣa-, karīṣa-, upala-, and khadirādikāṣṭhapuṭa. The yantras listed are adhaḥpātana-, agnisoma-, bāṇa-, bhūdhara-, cākī-, cakra-, cāraṇa-, ḍamaruka-, dolā-, gajadantabhājana-, gandhakaṭahikā-, garuḍa-, jālikā-, kacchapa-, kāṃsyabhājana-, kaṭāha-, mūṣā-, niyāmaka-, pāṣāṇa-, pātāla-, sāraṇa-, śilā-, tulā-, ūrdhvapātana-, vālukā-, and vaṃśanalikāyantra.[1168]

Āḍhamalla's date is not elucidated by his sources[1169] and depends in the first place on the identification of his royal patron Jaitrasiṃha, who was not the Cāhamāna king of that name, as that would lead to placing Śārṅgadhara not later than about A.D. 1250. Āḍhamalla may provisionally be assigned to the fourteenth century.[1170] The terminus ante quem is provided by a quotation from him in Vallabhabhaṭṭa's commentary on Śārṅgadhara's *Triśatī*.

Āḍhamalla is cited in Āśubodha Senagupta's commentary on Govindasena's *Paribhāṣāpradīpa*; Āḍhamalla and his *Śārṅgadharaṭippaṇī* are also quoted in Gulrājśarmamiśra's commentary on the *Āyurvedaprakāśa*.

Parts of Āḍhamalla's *Pradīpikā* are (anonymously) reproduced almost verbatim in an interpolated portion of the incompletely preserved text of Niścalakara's *Ratnaprabhā* on the *Cakradatta*. This portion, found in the two BORI MSS,[1171] covers the larger part of the chapter on netraroga, a chapter on rasādiśodhanamāraṇa (absent from the *Cakradatta*), and the chapter on sirāvyadha. The text commented upon is not that of Cakrapāṇi's treatise, but has been borrowed in toto from the *Śārṅgadharasaṃhitā*.[1172]

Both text and commentary contain numerous variants which are valuable for the establishment of a correct text of the *Śārṅgadharasaṃhitā* and Āḍhamalla's commentary.

The unknown author of the interpolated portions adds some references to sources left unmentioned by Āḍhamalla. These sources are: Bhāluki (ad netraroga 155); *Carakottaratantra* (ad netraroga 38, 39, 71, 74–76); Jatūkarṇa (ad netraroga 60–61); *Siddhasāra* (ad netraroga 44); Suśruta (ad netraroga 152 and 155); Vāgbhaṭa (ad netraroga 152 and 154). The date of the author is posterior to that of the *Yogaratnākara*, which was also drawn upon for a chapter he added. This agrees with the date of one of the BORI MSS (Nr. 63), completed in Bīkāner in A.D. 1727.[1173]

(2) Kāśīrāma wrote a commentary called *Gūḍhārthadīpikā*,[1174] which covers the whole of the *Śārṅgadharasaṃhitā*.[1175] He does not give us any particulars on his person, except from mentioning at the end that he completed his work under the reign of Śāh Salem, while it also becomes clear from the concluding verses that he was a devotee of Kṛṣṇa. Shāh Salīm has sometimes been identified as the second son and successor of the Afghan ruler Sher Shāh (1540–1545), who died young in 1554,[1176] which would place Kāśīrāma in the middle of the sixteenth century. According to P.V. Sharma, in whose view this identification cannot be endorsed because Kāśīrāma quotes the *Bhāvaprakāśa*,[1177] which dates from the same period, the Shāh Salīm mentioned at the end of the *Gūḍhārthadīpikā* must be Jahāngīr (1605–1627), who was called Salīm before his succession to Akbar's throne.[1178] This view may be correct, though it can be objected that Kāśīrāma does not refer to the *Bhāvaprakāśa* by name and the pertinent verse may derive from some other source put to use by Bhāvamiśra.

Works and authors referred to or quoted by Kāśīrāma are: Agniveśa (III.3.1), *Aśvinīkumāramata* (II.9.93–98), Ātreya (II.9.17–19ab), Bheḍa (III.3.9–11 and 14), Bhoja, Caraka, *Gītā* (I.5.57cd–58), Jaijjaṭa (II.9.8), *Madanavinoda* (II.11.40cd–43),[1179] *Mādhavanidāna* (I.7.12–13), *Madhukośa* (I.7.2–7ab), Nāgārjuna (II.11.48cd–53ab), *Nidāna* (I.7.80cd–82ab, 83–86, 100cd–101, 142–144ab, 146cd–149ab, 149cd–151ab, 153–171ab), *Paribhāṣā* (III.I.6), *Pātañjala* (II.11.48cd–53ab), *Pathyāpathyanighaṇṭu*[1180] (II.11.40cd–43), Rāvaṇa (I.5.48cd–50ab), *Śataślokī* (II.2.88–94; 6.54–57),[1181] Suśruta, Tīsaṭa (II.9.66cd–71; III.3.1),[1182] Trivikrama (II.11.60–61ab), Vāgbhaṭa, Vaṅgasena (II.2.4 and 88–94; 6.54–57; 7.40–49; 9.66cd–71; 11.60–61ab), Vaṅgasenādinibandhakāra (II.6.54–57), Vaṅgeśvara (II.11.40cd–43ab), *Viśva* (III.11.1–2), *Viśvakośa* (II.1.2), Vopadeva (II.6.54–57),[1183] *Vopadevaśataślokī* (II.2.88–94; 6.105cd–107), *Vṛddhasuśruta* (I.7.2–7ab), Vṛnda (II.2.4, 88, 162–163ab; 6.105cd–107; 9.66cd–71), and Vyāḍi (I.1.1.).[1184, 1185]

This list enables us to infer that Kāśīrāma is at least later than Madanapāla and probably later than Kaiyadeva. This does not solve the identity of Shāh Salīm.

(Kāśīrāma's) *Gūḍhārthadīpikā* is quoted in Yogendranātha's *Āyurvijñānaratnākara*.[1186]

Kāśīrāma is sometimes confused with Kāśīnātha, the author of the *Ajīrṇamañjarī*.[1187]

Another medical author, also called Kāśīrāma, wrote a *Vaidyasarvasva*,[1188] about which almost no particulars are known.

(3) Rudrabhaṭṭa or Rudradharabhaṭṭa,[1189] son of the physician Konerībhaṭṭa, and royal physician to 'Abdu'l-Raḥīm Khān-i-Khānān, wrote a commentary, called *Āyurvedadīpikā* or *Gūḍhāntadīpikā*,[1190] on the *Śārṅgadharasaṃhitā*, which has been preserved incompletely[1191] and is said to resemble Āḍhamalla's commentary.[1192] The same author composed a commentary on Lolimbarāja's *Vaidyajīvana* and a comprehensive treatise on therapeutics.[1193] According to some, he also wrote a *Saṃnipātakalikā*.[1194] Kṛṣṇabhaṭṭa, Konerībhaṭṭa's great-grandfather, has been credited with a commentary on the *Carakasaṃhitā*.[1195] As 'Abdu'l-Raḥīm, the son of Bairam Khān, who was the guardian and protector of the young Akbar, lived during the latter part of the sixteenth and the first part of the seventeenth century, Rudrabhaṭṭa lived in that same period.

The *Triśatī* by Śārṅgadhara

The *Triśatī*[1196] or *Jvaratriśatī*,[1197] sometimes called *Vaidyavallabha*,[1198] is a monograph on fevers by Śārṅgadhara.[1199]

Contents

The work consists of 330[1200] skillful verses in various metres and has some resemblance to a kāvya.[1201]

It begins with a benedictory verse devoted to the sun god, followed by stanzas in praise of Dhanvantari, the Aśvins, and the author's guru, the ascetic (yatipati) Vaikuṇṭhāśrama (1–5). The subject of the treatise is introduced by some verses on the mythical origin of fever (6–9) and its names when occurring in various living beings and even inanimate substances (10–12). The pathogenesis and prodromes of fever are described (13–17), followed by the symptoms and treatment of fevers by one (18–37) and two (38–54) doṣas. A large part of the work is devoted to saṃnipāta fevers. After enumerating the symptoms of saṃnipāta fever in general, and the varieties called abhinyāsa, hataujas and saṃnyāsaka in particular, the therapy of this fever is dealt with (55–68). Two series of thirteen distinct saṃnipāta types follow (70–171 and 172–188). The names and symptoms of the first series, consisting of saṃdhiga, antaka, rugdāha, cittabhrama, karṇaka, kaṇṭhakubja, śītāṅga, tandrika, pralāpaka, raktaṣṭhīvin, bhugnadṛś, abhinyāsa, and jihvaka, are also found in the *Bhāvaprakāśa* (cikitsā 1.493–505) and *Yogaratnākara* (160–162), but in a changed order and differently worded; the treatment of each type is separately described after the enumeration of its signs; these verses were incorporated unchanged in the *Bhāvaprakāśa*. The names and symptoms of the second series, consisting of antardāha, daṇḍapāta, antaka,[1202] kumbhīpāka, prorṇunāva, pralāpin, eṇīdāha, bhūtahāsa, ajaghoṣa, hāridra, saṃśoṣin, saṃnyāsa, and yantrāpīḍa, were also included in the *Bhāvaprakāśa* (cikitsā 1.510–522), though in a changed order.[1203] As the fevers of this second series, called upasaṃnipātas by the commentator, are incurable, the patient is advised to regard Nārāyaṇa and the water of the Ganges as his only refuge (188).[1204]

The remaining part of the work is concerned with the characteristics of incurability of fevers (189–192), the eight ways (prakāra) in which fever presents itself, namely prākṛta, vaikṛta, saumya, tīkṣṇa, sāma, nirāmaka, antarvega, and bahirvega (193–197), doṣapāka and dhātupāka (198–199),[1205] the irregular fevers (viṣamajvara; 200–216), pralepaka fever (217), the symptoms of fevers which have reached the seven tissues (dhātu) of the body (218–223), the therapy of the irregular fevers (224–269), the symptoms and treatment of fevers beginning with chills (śītapūrva) or sensations of warmth (dāhapūrva) (270–283), the religious therapy of fevers (284–297), the four types of exogenous (āgantu) fevers, namely those caused by abhighāta, abhiṣaṅga, abhiśāpa and abhicāra, together with their treatment (298–304), the complications (upadrava) of fever and their treatment (305–323), the synonyms of fever (324), the signs of release from fever (325–326), and what has to be avoided by a patient suffering from fever (327).

The work ends with three verses containing information on the author.

The *Triśatī* is quoted in the *Amṛtasāgara* (as the *Triśatagrantha*), Hariprapanna's *Rasayogasāgara*, and Yādavajī Trikamajī Ācārya's *Siddhayogasaṃgraha*.

Special features

Religious practices form a substantial part of therapy in the *Triśatī*.[1206] Some rasauṣadhas are also present.[1207]

Worthy of mention are the following names of medicinal plants: ākalakṛt (168),[1208] āsāluka (113),[1209] babbūla (157), hārahūrā (41; 86),[1210] jvālāmukhī (160), kāravikā (321),[1211] kuliñja (168), rājīphalā (105),[1212] tīvra (128, 153, 164),[1213] and vallavadāru (142).[1214] Opium is twice prescribed (161 and 164).[1215]

The author
Śārṅgadhara[1216] informs us that he is a son of Devarāja, who, of nāgaravaṃśa stock, was a learned poet, honoured by kings and scholars (328). The author was a pupil of Vaikuṇṭhāśrama (4). At the end of his work he praises Śiva and his consort (329). According to Indian scholars, Śārṅgadhara, being a brāhmaṇa of nāgaravaṃśa lineage, lived in Gujarāt.[1217]

Date
The author of the *Triśatī* was dated to the thirteenth-fourteenth century by G. Hāldār,[1218] whereas P.V. Sharma[1219] and Atrideva[1220] assign him to the fifteenth century. The prescription of drugs like ākalakṛt, jvālāmukhī, and tīvra indicates that he is not earlier, but probably later, than the author of the *Śārṅgadharasaṃhitā*, while he is anterior to Bhāvamiśra who incorporated verses from the *Triśatī* in his *Bhāvaprakāśa*. Hence he may provisionally be placed in the early fifteenth century.

Commentaries
At least three commentaries were written on the *Triśatī*: (1) the *Vaidyavallabha* by Vallabhabhaṭṭa;[1221] (2) the *Siddhāntasaṃcaya*[1222] by Nārāyaṇa,[1223] son of Kṛṣṇa, brother of Nāganātha and pupil of Nāgeśa; (3) a commentary by Dāsapaṇḍita.[1224]

Authors and works quoted or referred to by Vallabhabhaṭṭa are: *Abhidhāna* (77), Amara (4, 6, 76, 154, 284), Bhāluki (325), *Bhārata* (7), Cakra (20), Caraka (20, 69, 224), Ḍallaṇa (20), Halāyudha (66, 76, 83), Hārīta (20), *Karmavipāka* (240, 242, 248, 251, 253, 286, 289), *Madanavinoda* (234), Madhukoṣakāra (69), navīnasuśrutamata (213), *Nighaṇṭu* (78), *Saṃgraha* (20, 69), Siṃhāvalokita (284),[1225] Suśruta (many times), Vāgbhaṭa (many times), *Viśva* (4, 89),[1226] *Vṛddhasuśruta* (172–173), Yādava (220),[1227] and *Yogamālā* (238).

This list of sources enables us to conclude only that Vallabhabhaṭṭa and the *Triśatī* are probably later than the *Vīrasiṃhāvaloka*, dating from 1383, which is in favour of placing the *Triśatī* in the fifteenth century.

A ṭīkā on the *Triśatī* is quoted in Kṛṣṇadatta's commentary on Trimalla's *Śataślokī*.

R.G. Harshe[1228] has brought forward that the quotations from *Madguruvallabhā* and *Vidvadvaidyavallabha* in Śivadatta's auto-commentary on the *Śivakoṣa* may be from Vaidyavallabha's commentary on the *Triśatī*, which, if correct, would fix its terminus ante quem as 1677/78.

Siddharṣi

Siddharṣi was the author of the *Siddhayogamālā*, a short collection of prescriptions against various diseases.[1229]

Siṃha

Siṃha was the author of a *Nibandha*, completed in 1471/72.[1230]

Soḍhala

Soḍhala was the author of two important works, (1) the *Soḍhalanighaṇṭu*[1231] and (2) the *Gadanigraha*.[1232]

(1) The Soḍhalanighaṇṭu
The *Soḍhalanighaṇṭu*[1233] consists of two parts, a section on synonyms and homonyms, the *Nāmasaṃgraha*,[1234] and one on the properties and actions of drugs, the *Guṇasaṃgraha*.[1235] This arrangement of the material constitutes an unprecedented innovation. The work is written in verse, mostly ślokas, with longer metres in the introductory and closing stanzas of both sections. The *Nāmasaṃgraha* contains about 790 and the *Guṇasaṃgraha* 1,260 verses.

Contents
The *Nāmasaṃgraha* opens with ninety-five verses, the first eight of which are introductory, while the remaining eighty-seven are about the uses of the drugs belonging to the seven groups (varga) distinguished by Soḍhala. The names and synonyms of the drugs belonging to each of these seven vargas are enumerated in seven chapters: (1) guḍūcyādi, (2) śatapuṣpādi, (3) candanādi, (4) karavīrādi, (5) āmrādi, (6) suvarṇādi, (7) lakṣmaṇādi. The homonymic part of the nighaṇṭu, the anekārthavarga, dealing with words designating medicinal substances, is subdivided into four adhikāras, which contain words having respectively two, three, four and five meanings (dvyarthauṣadha, etc). The *Nāmasaṃgraha* ends with a miśrakavarga, chiefly on groups of substances, and four closing lines. A short pariśiṣṭa section is concerned with synonyms designating water, milk , butter, etc.

The *Guṇasaṃgraha* begins with eleven introductory verses, followed by a dravyāvalī, in which the names of all the drugs of the seven vargas are enumerated in their due order. The next part is on dravya, rasa, vīrya, vipāka, and prabhāva. The main portion consists of a description of the qualities and actions of the drugs, classified according to the seven vargas. Eighteen subsequent vargas treat of the qualities and actions of dietetic articles: pānīya-, kṣīra-, dadhi-, takra-, navanīta-, ghṛta-, taila-, madhu-, ikṣu-, madya-, mūtra-, śūka-, dhānya-, jūrṇā-, tṛṇadhānya-, śimbidhānya-, kṛtānna-, anupāna-, and māṃsavarga. The last chapter, miśrakādhyāya, deals with miscellaneous subjects. The treatise ends with about eight concluding lines.

Soḍhala states[1236] that he composed his *Nāmasaṃgraha* in agreement with the names mentioned by Dhanvantari. This raises the question of Soḍhala's sources. In P.V. Sharma's opinion, he was acquainted with the *Dravyāvalī*, and early version of the *Dhanvantarīyanighaṇṭu*, because of this reference to Dhanvantari, the presence of a somewhat similar dravyāvalī in both *Soḍhala-* and *Dhanvantarīyanighaṇṭu*, and the close resemblance, as to names and composition, of the vargas in both texts.[1237]

Regarding the last point, the first six vargas bear identical names, but the last one, called lakṣmaṇādi in the *Soḍhala-* and miśraka in the *Dhanvantarīyanighaṇṭu*, is an exception. The composition of the first six vargas, which is indeed remarkably similar, shows that the *Dhanvantarīyanighaṇṭu* contains a more expanded version of the

same matter when compared with the *Soḍhalanighaṇṭu*,[1238] though, on the other hand, a number of medicinal plants described by Soḍhala are absent from the *Dhanvantarīyanighaṇṭu*.[1239] The relationship between both works deserves special study.[1240]

It is too early, in my view, to agree with P.V. Sharma in claiming that the *Soḍhalanighaṇṭu* has a tenth-century version of the *Dhanvantarinighaṇṭu* as one of its main sources.[1241]

Soḍhala mentions Vāgbhaṭa with reverence[1242] and indicates himself some of his sources: Agniveśa, Karāla, *Aṣṭāṅgasaṃgraha* and *Aṣṭāṅgahṛdaya*.[1243] In P.V. Sharma's view, he also borrowed from Ḍalhaṇa, but the resemblances are rather superficial.[1244]

Soḍhala is referred to as a source in Jayaratna's *Jvaraparājaya*.[1245] The *Soḍhalanighaṇṭu* was one of the sources of Raghunāthajī's *Nighaṇṭusaṃgraha*; it is quoted in the *Śāligrāmanighaṇṭubhūṣaṇa* of the *Bṛhannighaṇṭuratnākara* and Śivadāsasena's commentary on the *Cakradatta*.[1246] Niścala's *Ratnaprabhā* contains an anonymous quotation that is found in the *Guṇasaṃgraha*.[1247]

Special features

The presence of a special chapter on jūrṇā (*Guṇasaṃgraha* 916–919) is quite a novel feature in a nighaṇṭu.

The list of remarkable names of plants found in Soḍhala's work is very long. Though unusual names occur in all parts of the work, a majority form part of the lakṣmaṇādivarga:[1248] abhilāta (629–630),[1249] andhaka (667),[1250] aṅgāraketu (693–694), āśālima (691),[1251] aśmavalka (665),[1252] avantī (670–672),[1253] bhṛṅgī (663),[1254] dudumbhaṭī (658), ḍilla (651),[1255] devagandhārikā (675), ḍulupuṣpa (668),[1256] durmila (651), gaṅgāṭī (683),[1257] ghaṇṭāvalī (664),[1258] ghoṭaka (677), girimatī (652),[1259] gudadilla (654), jalajambū (694–695),[1260] jayantī (670–672),[1261] jayavatī (671–672),[1262] jīrāvalī (687),[1263] kañcaka (656), karabha (688),[1264] kekidaṇḍā (651),[1265] kītagandhā (598),[1266] kṣutkarī (681–682),[1267] laghukacchū (648),[1268] madhyāhnika (689),[1269] mahārāṣṭrī (696),[1270] maitrī (657),[1271] mākṣika (695), mālāphala ((676),[1272] maṇḍhiḍhi (661), markośa (674), māśālī (693), māyuka (660),[1273] nāgārjunī (673),[1274] nākanārī (649), nārācī (665), narapuṣpa ((690),[1275] nimbī (657),[1276] palāśinī (678),[1277] panasī (682), parpoṭī (664),[1278] pāṣāṇī (685), phūti (647), siddheśvara (677),[1279] sphūrdana (674),[1280] śṛṅgāriṭṭī ((666),[1281] takṣakī (679), tāmravallī (650),[1282] uṃsadāra (666), ūṣandī (696),[1283] vallīyaka (669),[1284] vaṭu (688), and viṣakharparikā (661).[1285]

Noteworthy names from other parts of the *Nāmasaṃgraha* are, for example: bakāyinī (123),[1286] bhilla (73),[1287] bhṛṅgāri (143–144),[1288] kāṣṭhapāṭalā (172),[1289] kṣīranadī (195),[1290] liṅgabheda (76), raktapādī (51),[1291] śaṅkhayūthikā (628), tiktajīvantī (194), and vārṣikī (621–622).

Remarkable names from the *Guṇasaṃgraha* are: aṅgārakā (369ab), bodāraśṛṅgaka (579), drakṣūṇa (582), dṛṣatpunarnavā (249), gippiṭa (583),[1292] godhāmatī (559), jāka (588), jvalatpuṣpa (578),[1293] lāmikā (582), modayantī (577),[1294] rājaśola (570–571),[1295] srastarī (318–319), and yavaciñcī (37; 394).

The form of several words from these lists indicates that Soḍhala was not averse to the use of Prakrit, a fact which he states explicitly at the end of the *Nāmasaṃgraha*. A word like gunda,[1296] with the meaning of Sanskrit niryāsa, is freely employed by

him (e.g., *Guṇasaṃgraha* 589). A late loan-word like sābūna[1297] is also found in the *Guṇasaṃgraha* (590).[1298]

(2) The Gadanigraha

The *Gadanigraha* is, like the *Soḍhalanighaṇṭu*, composed of two distinct parts, a collection of formulae arranged according to the several types of pharmaceutical preparations, and a comprehensive text dealing with both nidāna and cikitsā, arranged in agreement with the eight aṅgas of āyurveda. Its model may have been Candraṭa's *Yogaratnasamuccaya*, which, though mainly a collection of recipes, also contains a therapeutic part called gadaśānti.

Contents

The first part of the *Gadanigraha*, the prayogakhaṇḍa, counting 2,700 verses[1299] and thus covering about a quarter of the whole treatise, is divided into six adhikāras, on ghṛta, taila, cūrṇa, guṭikā, leha, and āsava[1300] respectively. Its structure therefore closely resembles Candraṭa's *Yogaratnasamuccaya*, which is composed of eight adhikāras, namely ghṛta, taila, cūrṇa, guṭikā, avaleha, gadaśānti, pañcakarman, and kalpa. The chapter on āsavas is new in Soḍhala's work; a chapter on kalpa and a section (khaṇḍa) on pañcakarman form part of the *Gadanigraha* too.

Soḍhala mentions his sources by name in part of the ghṛtādhikāra only, up to verse 252ab. The authorities mentioned are: Agniveśa (32cd–35ab; 40cd–43ab; 66cd–68ab; 92–94; 150–153; 158–161; 162–168; 194–197), Bheḍa (72–76; 77–86ab; 95–101; 200–207), *Cikitsākalikā* (233–234), Hārīta (43cd–47ab; 47cd–49; 50–54ab; 54cd–60ab; 68cd–71; 89–91; 154; 185–187ab; 208–211), Jatukarṇa (169–176ab), Kharanāda (102–108ab; 242cd–249ab), Kṛṣṇātreya (114cd–118; 176–183ab; 198–199; 222–225ab; 225cd–230), Kṣārapāṇi (183–184), *Siddhasāra* (64cd–66ab), *tantrāntara* (249cd–252ab), Vāgbhaṭa (108cd–111ab; 155; 156–157), Vaideha (124–129), and Videha (212–217).

This procedure is surprising and hard to explain. P.V. Sharma[1301] believes that Soḍhala indicated these sources according to what he found in Candraṭa's *Yogaratnasamuccaya*, but that, as Candraṭa refers to his sources from beginning to end, only a defective copy of the *Yogaratnasamuccaya* was at Soḍhala's disposal.

Other sources of Soḍhala may have been Vṛnda's *Siddhayoga*,[1302] Cakrapāṇi's *Cikitsāsaṃgraha*,[1303] and Vaṅgasena's treatise.[1304]

One formula[1305] is said to derive from Lokasena, a resident of the Nandavihāra, who transmitted it to a bhikṣu.

Interesting names of drugs found in chapters one to five of the prayogakhaṇḍa are: brahmavinirmitā (cūrṇa 156),[1306] candrapriyā (guṭikā 452),[1307] dhūrtapatnī (guṭikā 447),[1308] ghoṭaka (ghṛta 384),[1309] indrikā (ghṛta 371),[1310] jīvanī (taila 365),[1311] jvālāmukhī (taila 524),[1312] kaṃsella (leha 45),[1313] kūṭaśālmali (cūrṇa 416),[1314] mahāparpaṭaka (taila 375),[1315] mahoṭikā (taila 339),[1316] parśucchinna (taila 524),[1317] sāraka (cūrṇa 435),[1318] śītapuṣpaka (guṭikā 13),[1319] sudhākarākhya (cūrṇa 323),[1320] sumarkaṭī (ghṛta 397),[1321] vārdhiphala (cūrṇa 297),[1322] vraṇarohiṇī (taila 365),[1323] vṛddhailā (cūrṇa 44),[1324] and yakṣahastaka (ghṛta 425).[1325]

The chapter on āsavas presents some interesting features. It describes the nine sources of āsavas (20–21), i.e., tvac, pattra, kāṇḍa, puṣpa, sāra, mūla, phala, dhānya, and sitā (sugar); it proceeds with giving details on these nine types. It enumerates six types made of dhānya (122), twenty-six of phala (23–25), eleven of mūla (26–27), twenty of sāra (27cd–28), ten of puṣpa (29–30ab), four of kāṇḍa (30cd), two of pattra (31ab), four of tvac (31cd), and one of sitā (32a). One of the āsavas, namely the varuṇāsava (324–336), is a contribution by Soḍhala himself, as indicated by the author.

Noteworthy drugs prescribed in the āsava chapter of the prayogakhaṇḍa of the *Gadanigraha* are:[1326] ākallaka (296; 319; 331),[1327] babbūlī (132),[1328] balābīja (294 and 317), dhamāsaka (267),[1329] gajaśeluka (297),[1330] hārahūrā (368), kabāba (319 and 332), kalauñjī (316),[1331] kaliñja (267),[1332] kāyaphala (267),[1333] kubjaka (281), mācikā (142 and 185), mastakī (249),[1334] nepālī (243),[1335] posta (317),[1336] uṭiṅgaṇa (296),[1337] and vijayā (320).[1338] Kuliñjana[1339] is found in another chapter (leha 342). The term arka is met with in this treatise for the very first time (āsava 271–274).[1340] P.V. Sharma claims that opium is also prescribed.[1341]

The greater part (7,354 verses) of the *Gadanigraha* is composed of nine khaṇḍas on kāyacikitsā, śālākyatantra, śalyatantra, bhūtavidyā, kaumāratantra, viṣatantra, rasāyanatantra, vājīkaraṇatantra, and pañcakarman.

The diseases are systematically assigned to one of the aṅgas, which is a new feature, and their order only partially agrees with the *Mādhavanidāna* for this reason, though Soḍhala basically accepted the latter work as authoritative and incorporated the whole of it in his own treatise. The differences between Mādhava and Soḍhala are only of a minor nature. The chapters on vṛddhi and vidradhi interchanged their places. Mādhava's chapters on unmāda and apasmāra were transferred to the khaṇḍa on bhūtavidyā; the chapter on unmāda was divided into two, one on bhūtonmāda, the other on unmāda. The arrangement of the chapters on śālākya differs from Mādhava's; their order is śiro-, karṇa-, netra-, nāsā-, and mukharoga. The khaṇḍa on śalya has ten chapters: granthy-apacy-arbuda-galagaṇḍa, ślīpada, vraṇaśopha-dvivraṇīya, sadyovraṇa, bhagna, nāḍīvraṇa, bhagandara, upadaṃśa, śūkadoṣa, and kṣudraroga, which means that Soḍhala accepted Mādhava's order, but made the latter's two chapters on vraṇaśotha and śārīravraṇa into one. It should be noted that the chapter on vidradhi is to be found in the khaṇḍa on kāyacikitsā and not in that on śalya, though it forms part of a series of śalya chapters in the *Mādhavanidāna*.

The matter dealing with kaumāratantra was not only slightly rearranged by Soḍhala, in comparison with Mādhava's work, but also expanded. The khaṇḍa on this subject has twelve chapters: pradara, yoniroga, garbhasrāva, mūḍhagarbha, vandhyā, yoniśukradoṣa, sūtikāroga, stanaroga, yonigāḍhīkaraṇa,[1342] yoninirlomīkaraṇa,[1343] bālaroga, and bālagraha. The chapter on yoniroga corresponds to Mādhava's chapter on yonivyāpad and yonikanda, those on garbhasrāva and mūḍhagarbha correspond to Mādhava's chapter on mūḍhagarbha, that on stanaroga agrees with Mādhava's chapters on stanaroga and stanyaduṣṭi, and those on bālaroga and bālagraha correspond to Mādhava's chapter on bālaroga. The chapters on vandhyā, yoniśukradoṣa, yonigāḍhīkaraṇa and yoninirlomīkaraṇa, which have no verses on nidāna, are additions.

The first chapters of the viṣatantra agree with the last chapter of the *Mādhavanidāna*, while the remaining seven are on therapy. The rasāyanatantra is of a composite nature; its first chapter is about rasāyana, the second (auṣadhikalpa) is concerned with kalpas useful in rasāyana, the third (bheṣajakalpa) is on various pharmaceutical preparations and measures, the fourth treats of dinacaryā, and the fifth of ṛtucaryā.

The sources of the verses contained in these nine khaṇḍas are indicated in a few instances: *Vṛddhavāgbhaṭa* (kāya 1.450–451), Suśruta (1.461–462), and Vāgbhaṭa (1. 547–549). Parts of the second chapter of the rasāyanatantra (auṣadhikalpa) have been taken from the *Aṣṭāṅgasaṃgraha*.[1344]

The *Gadanigraha* is quoted in Hariprapanna's *Rasayogasāgara*, Jayaratna's *Jvaraparājaya*,[1345] Viśvanātha Dvivedī's *Rasendrasambhava*, Yādavjī Trikamjī's *Rasāmṛta*, and in the *Yogaratnākara*. It is one of the sources of Āryadāsa Kumārasiṃha's *Kvāthamaṇimālā*, Devasiṃha Viṭṭhal's *Bṛhadāsavāriṣṭasaṃgraha* and of the *Rasoddhāratantra*.

Special features

The *Gadanigraha* contains in those parts which are devoted to nidāna a rather considerable number of extra verses which are not found in the *Rogaviniścaya*. Some of these are appended to the verses taken from Mādhava and indicated as prakārāntareṇa lakṣaṇāni,[1346] others occur at various places and describe specific syndromes. Examples of the latter category are: kāya 2.117 (pravāhikā), 5.30–32 (bhasmaka), 7.20 (hāridraka),[1347] 19.160 (kaṭigraha); kaumāra 11.18–21ab (kṣīrālasaka).[1348]

Mention is made of some syndromes unknown from earlier texts, such as a pañcāhasaṃbhava jvara (kāya 1.535–536) and ṣaḍdinodbhava jvara (1.536–537).[1349] Soḍhala incorporated the diseases called vardhma (kāya 35.11–12), snāyuka (kāya 40.41–43) and somaroga (kaumāra 1.63–68).[1350] The disorder called śleṣmapitta may have been described for the first time by Soḍhala (kāya 38.12).[1351] The terms śītalī (kāya 41. 68 and 70) and śītalikā (41.68 and 71–73), used by Soḍhala in his chapter on masūrikā, are among their earliest occurrences.[1352] Remarkable is the fact that Soḍhala regarded blood as a doṣa on the same footing as kapha and pitta, at least in an isolated instance (kāya 19.88). The terms rasendrabhoktar (vājīkaraṇa 125) and sūtasevin (vājīkaraṇa 135) tell in favour of the developed state of rasaśāstra in Soḍhala's times.

Religious elements play a minor role in this author's therapeutics, but the mention of a rākṣasī called Dundubhī (kāya 1.556–557), to be honoured in cases of fever, should be noted, as well as the employment of the Mahāmāyūrī (bhūta 1.47).

The plant mārkaṇḍī may well be found for the first time in the *Gadanigraha* (kāya 9. 46 and 33.76),[1353] as well as the substance designated by the term tavarāga (kaumāra 1. 55 and 11.121), a synonym of yavāsaśarkarā.[1354] Among the rare medicinal substances from the *Soḍhalanighaṇṭu* only a few are prescribed in the *Gadanigraha*, e.g., palāśinī (kāya 32.103 and 107) and bodāraśṛṅga (śalya 8.26).

On the other hand, the *Gadanigraha* mentions a number of medicinal plants which were not included in the *Nighaṇṭu*, e.g., āhulī (kāya 7.64), bhūmijayantī (kāya 1.557), brahmadaṇḍī (kāya 1.607),[1355] chohāra (kāya 6.34),[1356] ciñciṇī (kāya 1.220),[1357]

citrāṅgī (kāya 1.644),[1358] devaḍaṅgarī (kāya 30.88),[1359] dhārādhara (kāya 1.480),[1360] erakā (kāya 39.55),[1361] ghṛtapura (kāya 35.53),[1362] girikadambaka (kaumāra 11. 107),[1363] gopālakarkaṭī (kāya 29.61),[1364] karṇamoṭa (śalya 3.63),[1365] kaṭudugdhikā (kāya 4.179),[1366] kaṭutṛṇa (kāya 1.480),[1367] kṛṣṇabhramarikā (śālākya 2.83),[1368] kṛṣṇalā (kaumāra 10.7),[1369] kṣīrapotakī (kāya 22.38),[1370] māyāphala (kaumāra 9. 17),[1371] mūlakaśuṇṭha (kāya 1.406),[1372] pañcānana (kāya 10.69),[1373] riṅgiṇī (kāya 23.82),[1374] sitakesara (kāya 23.134),[1375] uṭiṇṭa (kāya 41.68),[1376] vaidyāmṛta (kāya 1.476),[1377] vallītaru (kāya 19.201),[1378] varṇojjvala (kāya 31.29),[1379] and vīrabhaṭī (bhūta 1.78).[1380] The term khapura is used as a synonym of niryāsa in jiṅgiṇīkhapura (kāya 19.197). The term amlavetasa is employed in a peculiar way (rasāyana 2.5).[1381]

The author

Soḍhala belonged, as he indicates himself,[1382] to a Rāyakavāla[1383] family of the Vatsa gotra. Besides being conversant with āyurveda, he was an expert in sāhitya, jyotiḥśāstra, and vyākaraṇa.[1384] According to some, he was the son of a physician called Svaccha, according to others his father's name was Nandana.[1385] The name of his teacher is sometimes said to be Saṅghadayālu[1386] or Asoḍha.[1387] Judging from the maṅgalācaraṇa of *Nāma-* and *Guṇasaṃgraha*, he was probably a devotee of Sūrya, the sun god.[1388] Since Rāyakavāla brāhmaṇas belong to Gujarāt, it can safely be assumed that Soḍhala lived there, the more so because he uses names of drugs which are current in that region.[1389]

P.V. Sharma assumes that the author of the *Soḍhalanighaṇṭu* and *Gadanigraha* is the same as Soḍhala, son of Bhāskara, and father of the Śārṅgadeva who composed the *Saṃgītaratnākara* and *Adhyātmaviveka*. This Soḍhala, who was a descendant of Vṛṣagaṇa, migrated from Kaśmīr to the South, and was an accountant-general attached to the court of the kings Bhillama (1175–1191), Jaitra (1191–1210) and Siṅghaṇa (1210–1247) of the Yādava dynasty, an office which was held by Śārṅgadeva too. The family of this Soḍhala was composed of physicians and even Śārṅgadeva himself was not only a musician and poet, but also a medical practitioner well versed in āyurveda.[1390] The Yādava king Bhīmadeva II had a copper plate inscribed in the year 1256, recording donations to the son of a Soḍhala from a Rāyakavāla brāhmaṇa family who was an expert in jyotiḥśāstra.[1391]

Certainty cannot be reached with regard to P.V. Sharma's assumption, but his reasoning does not carry conviction.[1392]

Date

Internal evidence from the *Gadanigraha* proves that Soḍhala is posterior to Ravigupta, Mādhava (the author of the *Mādhavanidāna*), Vṛnda, Tīsaṭa, Candraṭa, and Vaṅgasena. The absence from the *Gadanigraha* of the majority of the mercurial and other metallic preparations found in the therapeutic treatises of Cakrapāṇi and Vaṅgasena may be due to the Bengal origin of these two authors, for this type of preparation came into use in Bengal first.[1393]

The relationship between the *Soḍhalanighaṇṭu* and an early version of the *Dhanvantarinighaṇṭu*, postulated by P.V. Sharma, cannot be used for chronological purposes, because the hypothesis is unnecessary and vague. The same author's assumption that Soḍhala borrowed from Ḍalhaṇa is unacceptable. The fact that the names of new drugs borrowed from Islamic medicine occur in prescriptions of the *Gadanigraha* appears to prove that Soḍhala cannot be placed earlier than about A.D. 1200, a date that is in agreement with what is known about Soḍhala's sources. That Soḍhala was active during the first half of the thirteenth century and held some office at the Yādava court may be corroborated by his description of two medicinal preparations named after king Siṃhaṇa.[1394] Soḍhala's terminus ante quem cannot be determined by means of quotations in which the source is specified, but it is very likely that his works were used by many later authors. This seems beyond doubt in the case of Vopadeva, who adopted a number of verses from the *Guṇasaṃgraha* (1068d–1069ab; 1070–1071) in his *Siddhamantraprakāśa* (ad *Siddhamantra* 76), which is in support of placing Soḍhala in the first part of the thirteenth century. Bhāvamiśra is also an author who certainly borrowed from the *Soḍhalanighaṇṭu*.[1395]

According to P.V. Sharma,[1396] Soḍhala's works were also put to use by the author of the *Hārītasaṃhitā*, Keśava, Niścalakara,[1397] Śārṅgadhara, Madanapāla, and the author of the *Rājanighaṇṭu*; P.V. Sharma also claims that Niścalakara quotes the *Soḍhalanighaṇṭu*, without mentioning the name of his source.[1398] The *Soḍhalanighaṇṭu* may have been one of the sources for the chapters on materia medica of Ṭoḍara's *Āyurvedasaukhya*.[1399] The relationship between Soḍhala and the author of the *Mādhavadravyaguṇa* remains undetermined.[1400] The available evidence, taken together, is in favour of assigning Soḍhala to the period around 1200.[1401]

The *Mānasollāsa* ascribed to Someśvara

The *Mānasollāsa*[1402] or *Abhilaṣitārthacintāmaṇi*,[1403] an encyclopaedic work, ascribed to king Someśvara,[1404] contains sections which pertain to medicine.

Contents

The *Mānasollāsa* is a voluminous text of one hundred chapters (adhyāya), arranged into five groups of twenty chapters each (viṃśati or prakaraṇa). It was composed for use by the king and the members of the royal court, and deals with all aspects of daily life. Only those parts of the work which relate to human medicine will be discussed here.[1405]

The first viṃśati has some verses on foods and drinks to be avoided by a king (abhakṣyavarjanādhyāya: 45–52).[1406] It also contains a chapter that is largely devoted to medicine (dīnānāthārtabandhubhṛtyapoṣaṇādhyāya: 135–304). Its main part (vaidyaka: 135–292) is about the treatment of various internal diseases, amongst which fever predominates (jvara: 145–199),[1407] while some verses on surgery are appended to it (285–290). The prescriptions contain well-known vegetable drugs. This section on therapy is followed by a short list of synonyms of some medicinal substances (auṣadhinighaṇṭu: 292–300).

The second viṃśati has an interesting section on rasāyana (10–51),[1408] verses on the qualities required in a cook (sūdalakṣaṇa: 134–137)[1409] and a physician

(vaidyalakṣaṇa: 138–145),[1410] a short section on alchemy, especially auri- and argentifaction (dhātuvāda-rasāyana: 377–394),[1411] and a section on gems (403–536).[1412]

The third viṃśati, which deals with enjoyments (upabhoga) of the king, describes the residences (gṛha; 906–926),[1413] baths (snāna; 927–953),[1414] footwear (pādukā; 954–958),[1415] ointments (vilepana; 980–1008),[1416] clothing (vastra; 1009–1041ab),[1417] garlands (mālya; 1041cd–1048ab),[1418] ornaments and jewels (bhūṣa; 1048cd–1132ab),[1419] seats (āsana; 1132cd–1150),[1420] chowries (cāmara; 1151–1160),[1421] foods (annabhoga; 1342–1600)[1422] and drinks (pānīyabhoga; 1601–1629),[1423] which are suitable to a royal person. It adds verses on betel chewing (tāmbūla; 959–979),[1424] ointments for the feet (pādābhyaṅga; 1630–1638),[1425] vehicles (yāna; 1639–1659),[1426] parasols (chattra; 1660–1669),[1427] couches (śayyā; 1670–1696),[1428] incenses (dhūpa; 1697–1712),[1429] and rules for his contacts with women (yoṣita; 1713–1820).[1430]

The fourth viṃśati contains verses on wondrous feats (camatkāravinoda: 1433–1493), and the fifth verses on alcoholic drinks and the way they should be consumed (madirāpānakrīḍā: 426–514).[1431]

The *Mānasollāsa* is one of the sources of Basava's *Śivatattvaratnākara*.

Special features

Interesting terms are daka (1.170)[1432] and lāvaṇika (1.171).[1433] The auṣadhanighaṇṭu gives some names of medicinal plants current in Karṇātaka.[1434] The main ingredients of the prescriptions in the rasāyana section are śālmalī, hastikarṇī, muṇḍi, śvetabrahmavṛkṣa, and amarī.[1435] A king should make use of the vātātapika method of rasāyana, since the kuṭīprāveśika method is not suited to him.

A disease called jalagraha (2.41)[1436] and the disorder known as lūtā (2.42) are mentioned in the rasāyana section.

Some dishes, both vegetarian and non-vegetarian, described in the section on annabhoga of viṃśati three are:[1437] aṅgārapolikā (1382), antraśuṇṭhaka (1493), bhaḍitraka (1465), bhūṣikā (1481), cakkalikā (1436, 1437, 1439, 1441), ghārikā (1403), ghosaka (1393), ghṛtakarkaṭa (1542), iḍarikā (1401), karpūramāgiṇī (1563), kāsāra (1387), kaṭakarṇa (1396), kavacandī (1456), khārakhaṇḍa (1534), kośalī (1482), kṛṣṇapāka (1475), majjikā (1573), nandyāvarta (1539), pāhalikā (1385), pañcavarṇī (1491), polikā (1383), pūrabhaṭṭāka (1484), puryala (1461), sohalā (1384), śuṇṭhaka (1435, 1436, 1447, 1458), utkvāthita (1509), upakhaṇḍaka (1515), varṇaśuṇṭhaka (1501), varṣolaka (1417), and vaṭṭimaka (1487).

Noteworthy names of vegetables in the same section are: amlaharidrakā (1563), amlapattrī (1552),[1438] kuhirī (1557), māgiṇī (1563), maruka (1551),[1439] nandana (1555), śeḍhaka (1552), vanamāgiṇī (1563), and vaṭṭāṇa (1393).

The author and his date

Although attributed to king Someśvara himself,[1440] the *Mānasollāsa* was obviously composed by some learned paṇḍit attached to the royal court,[1441] because Someśvara is highly praised in the work.[1442]

Someśvara III,[1443] surnamed bhūlokamalla,[1444] satyāśrayakulatilaka,[1445] and cālukyābharaṇa,[1446] was the son of the famous king Vikramāditya VI and belonged to the line of the Western Cālukyas,[1447] who had their capital at Kalyāṇa.[1448] He reigned from A.D. 1126 or 1127[1449] to 1138.[1450]

The *Mānasollāsa* was completed in A.D. 1130/31.[1451]

The *Parahitasaṃhitā* by Śrīnāthapaṇḍita

The *Parahitasaṃhitā* by Śrīnāthapaṇḍita[1452] is a comprehensive medical treatise from South India, chiefly based on the works attributed to Vāgbhaṭa.

Contents

The work consists of three kāṇḍas, the sādhāraṇa-, aṣṭāṅga-, and rasakāṇḍa. The sādhāraṇakāṇḍa contains five chapters (adhikāra): (1) prathamādhikāra, on the three doṣas and their seats, the seven tissues (dhātu) of the body, rasa, vīrya, etc.; (2) dravyaniścayādhikāra, on the properties of foods and medicinal substances; (3) svasthavṛttādhikāra, on the maintenance of health; (4) āturavṛttādhikāra, on the examination of patients and the principles of diagnosis and treatment; (5) prāyaścittādhikāra, on the treatment of diseases by acts of propitiation, etc.[1453] The aṣṭāṅgakāṇḍa has eight chapters: (1) prathamādhikāra, probably concerned with kāyacikitsā; (2) kaumāratantra; (3) bhūtavidyādhikāra; (4) śālākyacikitsā; (5) sarvaśalyacikitsā; (6) viṣacikitsā; (7) rasāyanatantra; (8) vājīkaraṇatantra.[1454] The contents of the rasakāṇḍa remain unknown, but are probably based on rasaśāstra texts.

The chapter on śālākyacikitsā has 724 and that on sarvaśalyacikitsā 657 verses, mostly ślokas, though other metres are also represented.

The chapter on śālākyacikitsā contains sections on netraroga (1–308), karṇaroga (309–368), nāsāroga (369–392), mukharoga (393–551), and śiroroga (552–724). The chapter on sarvaśalyacikitsā is subdivided into sections on śopha, vraṇa and bhagna (1–201), bhagandara (202–241), granthi (242–264), arbuda (265–270), ślīpada (271–285), gaṇḍamālā and apacī (296–308), kṣudraroga (309–515), dehadaurgandhya and dagdha (489–515), and guhyaroga (516–657). The arrangement of the diseases in these two chapters agrees with that adopted by Vāgbhaṭa in most respects and many verses are taken from his works.[1455] The series netra-, karṇa-, nāsā-, mukha- and śiroroga is also found in the Uttarasthāna of Vāgbhaṭa's works. Remarkable, however, is the description of thirteen saṃnipāta fevers in the section on śiroroga (622–673). The names and symptoms of this series, consisting of saṃdhika or saṃdhiga, antakastha,[1456] dṛgdāha or rugdāhaka, citta(vi)bhrama, śītāṅga or śītagātra, tāndrika,[1457] kaṇṭhakubja, karṇika or karṇaka, bhagnanetra[1458] or bhugnadṛś, raktaṣṭhīvin, pralāpaka or pralāpin, jihvaka, and abhinyāsa (622–636), are also met with, in the same order, in the *Yogaratnākara* (160–162), where they are said to be borrowed from some other treatise. The verses on the treatment of these fevers (637–673) also occur in the *Bhāvaprakāśa* (cikitsā 1. 641–694) and *Yogaratnākara* (184–190).

The order in which the diseases are described in the sarvaśalyacikitsā chapter partially agrees with Vāgbhaṭa, namely from vraṇa up to the kṣudrarogas. The number of the latter is fifty-five in the *Parahitasaṃhitā* (515), but only thirty-six in Vāgbhaṭa's

works (A.h.U.31.33; A.s.U.36.31). Their number has been increased by including śītapitta (326; 413–423), amlapitta (327–328; 424–445), masūrikā and sphoṭa (329–344; 446–488), snāyupravṛddhāmaya (345),[1459] dehadaurgandhya (a bad body odour), and dagdha (burns) (489–515). The presence of these diseases in the *Parahitasaṃhitā* indicates that it has been influenced by the *Mādhavanidāna* and Vṛnda's *Siddhayoga* or later works. The guhyarogas, which are said to be forty in number (657), comprise, in the same way as in Vāgbhaṭa's works, all the disorders of the male and female sexual organs. The number of diseases known is indicated in several instances and usually agrees with Vāgbhaṭa.[1460]

With the exception of Vāgbhaṭa's works, the *Suśrutasaṃhitā*, and the *Rasaratnasamuccaya*,[1461] nothing is known with certainty about Śrīnāthapaṇḍita's sources.[1462] Later authors do not quote him.

Special features

Apart from the peculiarities already referred to, some more features are worthy of mention. The treatment of galagaṇḍa and gaṇḍamālā is dealt with twice, in the śālākya chapter (514–520) and in that on śalya (286–308). That part of the śalya chapter which deals with the kṣudrarogas includes a description of harītakī and its seven varieties, and of āmalakī, vibhītaka, and triphalā (390–412).[1463] At the end of some sections there occur verses on karmavipāka (śalya 199 and 238–241), but this is not a conspicuous element of the *Parahitasaṃhitā*, while, on the other hand, religious therapy plays a prominent role (sālākya 304–308, 391–392, 547–550, 716–724; śalya 199–201, 238–241, 469–470, 657).

The author

The name of Śrīnāthapaṇḍita appears in the colophon at the end of the śalya chapter, at the end of the last chapter of the aṣṭāṅgakāṇḍa,[1464] and at the end of the sādhāraṇakāṇḍa.[1465]

The name of his work, *Parahitasaṃhitā*, may refer to the Parahita physicians of Āndhra, though not necessarily so, as the title, which simply means 'saṃhitā promoting the welfare of other (living beings)', may be of the same type as, e.g., *Kalyāṇakāraka*.

Members of families of physicians distinguished by the honorific title Parahita are known from four inscriptions: (a) Parahita III of Ātreyagotra, who was the prāṇācārya of Siṅgayanāyaka of Kōrukoṇḍa;[1466] (b) Bhāskarārya, son of Parahita, of Kāśyapagotra;[1467] (c) Siṅganārya, of Kāśyapagotra, son of Villanārya, grandson of Bhāskarārya and great-grandson of Periyavilla Parahita;[1468] (d) Parahita IV, son of Kālanātha Bhaṭṭa.[1469]

As appears from these inscriptions, there were two of these families, belonging respectively to the Ātreya- and Kāśyapagotra; the one was an older, well-established Telugu family and the other a Drāviḍa family which came from the South, learnt medicine from the already famous Āndhra family, and also adopted the title Parahita, either as a compliment to their preceptors or to gain prestige. In the inscriptions both families claim that an ancestor, Parahita I, treated a serpent that was suffering from a bone stuck in its throat, and that the success of the treatment resulted in this ancestor's being hon-

oured with the name of sarpavyādhicikitsaka.

The author of the *Parahitasaṃhitā* may have been a descendant of the Parahita families or one of their pupils, though his name does not occur in the inscriptions mentioning Parahita physicians.[1470] Arguments for the view that the title Parahita was not reserved for one or more particular families of physicians, but could be given to any physician well versed in all branches of medicine who devoted his life to the practice of his art are given by P. Hymavathi.[1471]

Date

The Madras MS of the *Parahitasaṃhitā* is written in nandināgarī,[1472] a type of script that was in common use during the time of the western Cālukyas, the Reḍḍī kings of Koṇḍavīḍu[1473] and the earlier dynasties of Vijayanagar rulers; it went out of fashion after the sixteenth century.[1474] Hence the MS was copied in the fifteenth or sixteenth century and the text may belong to the fifteenth century. This conclusion is corroborated by the absence of phiraṅgaroga from the *Parahitasaṃhitā*,[1475] a disease described for the first time in the *Bhāvaprakāśa*, which dates from the sixteenth century.[1476]

Vaṅgasena

Vaṅgasena is the author of a comprehensive textbook,[1477] called *Cikitsāsārasaṃgraha*,[1478] but often referred to as *Vaṅgasena*[1479] after its author. Other titles are *Cikitsāmahārṇava*,[1480] *Cikitsāsaṃgraha*,[1481] *Cikitsātattvasaṃgraha*,[1482] *Vaidyavallabha*,[1483] and *Vaṅgadattavaidyaka*.[1484]

Contents

Vaṅgasena's treatise contains 11,000–12,000 verses (mostly ślokas) and some prose,[1485] arranged in ninety-six chapters. The first 124 stanzas are devoted to general subjects, such as definitions of nidāna, pūrvarūpa, rūpa, upaśaya and saṃprāpti (1.9–15), the seasons (1.50–52), the constitutions (1.66–72), the doṣas (1.73–79), weights and measures (1.95–113), patients not to be treated (1.114–117), etc. An (incomplete) table of contents of the work follows (1.125–133). The bulk of the treatise (the remaining part of chapter one and chapters two to seventy-five) are about the diseases and their treatment. This section is followed by chapters on sneha, sveda, vamana, virecana, bastikarman, dhūmapāna, kavala, and nasya, svasthavṛtta, pharmacology, ṛtucaryā, ariṣṭa, and definitions of a series of actions of drugs.

The chapters on diseases are arranged by the eight aṅgas: kāya and śalya (sixty-four chapters), śālākya (five chapters), kaumārabhṛtya (two chapters), agada (one chapter), rasāyana (one chapter), and vājīkaraṇa (one chapter).

The subject matter of the jaladoṣādiyoga chapter is of a remarkable type and does not fit in with this scheme. Besides being concerned with the treatment of disorders caused by polluted water (jaladoṣa), it has some recipes suitable for making women submit to male advances (vaśīkaraṇa), improving the qualities of the sexual organs in males and females, preventing flaccidity of the breasts in women, delaying ejaculation in men, causing sterility or curing it, etc.

The more or less heterogeneous contents of the chapter on rasāyana show a good deal of influence from iatrochemistry; it describes rasāyanayogas for a long series of diseases, treats of śirobasti and the marmans, and enumerates even the nānātmaja diseases.

Vaṅgasena is heavily dependent on Mādhava in the arrangement of the diseases; his verses on nidāna are taken from Mādhava's *Rugviniścaya*,[1486] at least for the larger part. This is not to say that almost nothing new is found in Vaṅgasena's nidāna, when compared with Mādhava, for it contains many variants,[1487] and its order deviates at many places.[1488] More interesting, however, are the numerous stanzas that cannot be traced in Mādhava's work, as well as the new disorders described. Vaṅgasena's therapeutic prescriptions failed to receive much attention,[1489] but deserve more study,[1490] since a few at least cannot be traced in earlier works.[1491]

The chapters on snehapāna up to that on svasthavṛtta and the chapter on ṛtucaryā are concerned with subjects that follow upon the section on specific therapy in many treatises. Numerous verses in these chapters are taken from Vṛnda's *Siddhayoga* or the *Cakradatta*.

The chapter on dravyaguṇa[1492] describes the tastes, etc., the actions of a restricted number of medicinal substances, the best varieties of these, and substitutes to be used in the absence of particular drugs. The gaṇapāṭha chapter enumerates thirty-seven groups of drugs, together with their actions.[1493] The next chapter, based on Caraka,[1494] and called saṃśodhanasaṃśamanarasadravyādīnāṃ vargādhikāraḥ, has fourteen groups (varga) of drugs, appropriate for the purpose of saṃśodhana and saṃśamana, or dominated by a particular taste. Three chapters (dhānyavarga, māṃsavarga, śākaphalavarga) are about the properties of articles of food. Two chapters (vyañjanamāṃsavyañjana and matsyavyañjana) are concerned with prepared foods, and one chapter (dravadravya) is about fluids. The next chapter, on ariṣṭas, contains mainly material from the *Suśrutasaṃhitā* (Sū.28–33). The last chapter, called dīpanapācanadravyalakṣaṇa, gives definitions of a series of technical terms denoting particular actions of drugs and is the earliest one of this type on the subject.[1495] The treatise ends with four verses (vaṅgasenotpatti) on Vaṅgasena's life and work.

Authorities to whom prescriptions are attributed are: the Aśvins,[1496] Ātreya,[1497] Bhāradvāja,[1498] Bhāskara,[1499] Girirājaputrī (i.e., Pārvatī),[1500] Girīśa (i.e., Śiva),[1501] *Iḍānibhandhacaryā*,[1502] Kāṅkāyana,[1503] Kāśika,[1504] Kāśyapa,[1505] Nāgārjuna,[1506] Śaṃkara,[1507] Siddhanātha,[1508] Śrīviśvarūpa,[1509] Tārā,[1510] Vaideha,[1511] Videha,[1512] and Viṣṇu.[1513]

Vaṅgasena rarely refers to his sources, but three works of Nāgārjuna are mentioned by name: *Lohaśāstra* (rasāyana 474), *Rasāyanasaṃhitā* (rasāyana 166), and *Yogasāra* (strīroga 91). One formula derives from the *Āśvinasaṃhitā* (gulma 76–78). Hārīta's opinion on a particular subject is once referred to (jvara 502). G. Mukhopadhyaya claims that Vaṅgasena quotes Kapilabala.[1514]

Authors and works quoting from or referring to Vaṅgasena or his work are: the *Ārogyāmṛtabindu*, Āśubodha and Nityabodha Senagupta's commentary on the *Rasaratnasamuccaya*, the commentary on the *Āyurvedābdhisāra*,[1515] the *Āyurvedīya Khanijavijñāna*, Bhāvamiśra's *Bhāvaprakāśa*[1516] and its glosses,[1517] Binod Lall Sen's *Āyurvedavijñāna*,[1518] the *Bṛhadrasarājasundara*, Candraṭa's *Yogaratnasamuccaya*,[1519] Devasiṃha Viṭṭhal's *Bṛhadāsavāriṣṭasaṃgraha*, Vācaka Dīpacandra's *Laṅghanapathyanirṇaya*, Ḍalhaṇa,[1520] Gopāladāsa, Gulrājśarmamiśra,[1521] Hariprapanna in his *Rasayogasāgara*, Hemādri,[1522] Kāśīrāma,[1523] Māgacandra, Meghamuni's *Meghavinoda*,[1524] Niścalakara's *Ratnaprabhā*,[1525] the *Pākamārtaṇḍa* and *Pākārṇava*, the *Rasoddhāratantra*, Śrīkaṇṭhadatta,[1526] Śrīvāṇeśvara Bhaṭṭācārya's *Rasaratnadīpikā*,[1527] Sukhānanda's commentary on Lolimbarāja's *Vaidyajīvana*, Trivikrama's *Lauhapradīpa*,[1528] Vaidyarāja's *Sukhabodha*, and the *Yogaratnākara*.[1529]

Vaṅgasena's treatise was one of the sources of Āryadāsa Kumārasiṃha's *Kvāthamaṇimālā*, Viśvanātha Dvivedī's *Rasendrasambhava* and of the *Ma'din al-Shifā'*. It was (anonymously) used as a source by the author of the interpolated portion of Niścalakara's *Ratnaprabhā*.[1530]

Commentaries on Vaṅgasena's work may have been written by Vaidyanātha[1531] and Trivikrama.[1532]

Special features[1533]

Vaṅgasena deviates from the *Mādhavanidāna* by inserting stanzas from other sources, splitting up chapters, combining them in new ways, and adding new diseases. Insertions occur especially in the chapters on jvara, netraroga, strīroga, and bālaroga. Vaṅgasena has separate chapers on rājayakṣman and kṣatakṣaya,[1534] hikkā and śvāsa,[1535] śūla and pariṇāmaśūla,[1536] udāvarta and ānāha,[1537] galagaṇḍa, gaṇḍamālā, granthi, and arbuda.[1538] Mādhava's gynaecological chapters are replaced by one chapter on strīroga.

A noteworthy feature is the addition of chapters on bhasmaka, bradhna, and snāyuka, diseases that are not separately dealt with in Vṛnda's *Siddhayoga* and the *Cakradatta*. Vaṅgasena describes the pathogenesis, symptoms and therapy of bhasmaka, a disorder characterized by an excessive activity of the digestive fire.[1539] Bradhna is described together with kuraṇḍa, two disorders with swelling of the inguinal canal and the scrotum as their chief symptom. The verse on bradhna is identical with that on vardhma in Vṛnda's *Siddhayoga* (40.20); kuraṇḍa, said to differ from bradhna in being painless, is added from an unknown source. The treatment of bradhna is the same as that of Vṛnda's vardhma, apart from one extra recipe.[1540] Formulae against kuraṇḍa are absent. The characterization of snāyuka is a somewhat expanded version of the description found in the *Siddhayoga* (55.15–17); its treatment, partly the same as in the *Siddhayoga*, is more elaborate.

The description of the disease called urograha, a very painful swelling of the upper and lateral parts of the abdomen, may be the earliest one, unless this disorder was already known to Vāgbhaṭa;[1541] Vaṅgasena also deals with its treatment.

Worthy of attention is Vaṅgasena's enumeration of the symptoms of five types of splenomegalia (plīhodara; udara 121–127).

The chapter on masūrikā adds a verse (33) on a variety called kodrava or kakṣāka, originating from kapha and vāta.

Somaroga (strīroga 82–85) and the related mūtrātisāra (strīroga 90) are two disorders recognized for the first time in Vaṅgasena's work, in the chapter on women's

diseases. Somaroga is a polyuria, occurring in women only; when of long standing, it is called mūtrātisāra.[1542]

Aversion to sexual intercourse in women (strīvidveṣa or strīdoṣa) is also dealt with in the chapter on women's diseases (prose between 90 and 91); the passages on this group of disorders are quoted from the strīdoṣacikitsāpariccheda of Nāgārjuna's *Yogasāra*. Three types are distinguished, caused respectively by fate (daiva; for example, incompatible horoscopes of husband and wife), an awkward (avidagdha) husband, and a female rival (sapatnī).[1543] Rituals, sometimes accompanied by the application of drugs, are thought to be helpful in overcoming the woman's resistance; statuettes (puttalikā), made of particular substances, homage paid to the Kumārīs, and mantras, are important elements of the rituals described.

Two interesting children's diseases mentioned are paścāttaka (bālaroga 114–119), a vraṇa (sore or ulcer) affecting the anal region, probably also known as vicchi, vicchī and vicchinna[1544] (bālaroga 120–122), and śayyāmūtraṇa (bālaroga 126–128), enuresis nocturna.[1545] The description of the children's disease called upaśīrṣaka, omitted in the *Mādhavanidāna*, is borrowed by Vaṅgasena (bālaroga 129) from Vāgbhaṭa.[1546] The bad effects of the inauspicious, too early eruption of teeth are dealt with in a series of verses (bālaroga 140–144), followed by the prāyaścitta required in such cases (bālaroga 146–148).

The rasāyana chapter contains a number of recipes which are specifics against particular diseases (262–318). The same chapter describes the marmans (prose between 331 and 332, 332–350) and enumerates the nānātmaja disorders by vāta, pitta and kapha (351–369).

The chapter on ariṣṭas has verses on the examination of a patient's eyes (netraparīkṣā 178–186), face (mukhaparīkṣā; 187–188), and tongue (jihvāparīkṣā; 189–192), followed by an elaborate description of the examination of the urine (mūtraparikṣā; 193–225), which includes, for the first time in Indian medical history, the tailabindu method, in which the form, assumed by a drop of oil on the surface of the urine, has diagnostic and prognostic significance.[1547]

Vaṅgasena's materia medica is mostly of the common āyurvedic type. He is, however, one of the earliest authors to prescribe *Cannabis sativa* Linn. (bhaṅgā; rājayakṣman 83).[1548] Opium is still unknown to him.[1549]

The stage of development of rasaśāstra in Vaṅgasena's work deserves careful study, having been underestimated previously by J. Jolly,[1550] who claimed that the calcination of metals is not mentioned, while metals in general are only infrequently spoken of, though iron is elaborately described, as well as its killing (māraṇa), etc.

Iron and its varieties are indeed described in a detailed way in the chapter on haemorrhoids (arśas 214–241).[1551] The usual three types of iron are listed: muṇḍa, tīkṣṇa and kānta; muṇḍa has three varieties: mṛdu, kuṇḍa and kaṇḍāra, tīkṣṇa is of six varieties: khara, yogara, sāra, karṇaka, drāvaka and romaka, kānta is divided into seven varieties: huntāla, tāra, vaṭṭa, vājara, kāla, bhrāmaka and cumbaka (arśas 214–225); besides the already mentioned types, pāṇḍija loha is referred to (arśas 229 and 266).

Various other metals are mentioned in the treatise: copper (tāmra) occurs at many places in the chapter on rasāyana (53, 69, 101, 110, 115), lead (nāga) and tin (vaṅga) are referred to in the same chapter (95). Substances like sulphur (gandhaka), mica (abhraka), etc., are repeatedly prescribed. The killing (māraṇa) of diverse metals, not only iron, was well known to Vaṅgasena (rasāyana 77 and 95). He was also acquainted with a number of processes to which mercury should be subjected before using it medicinally (rasāyana 264 and 287: mūrchana; 461: śodhana).

Remarkable is the occurrence of the terms yaśada (zinc; rasāyana 326)[1552] and śāṅkhadrāva (udara 176–178) in the relatively early work of Vaṅgasena.[1553]

Rasayogas are not uncommon among Vaṅgasena's formulae.[1554] Elements derived from religion[1555] and astrology[1556] are repeatedly found in the verses on treatment; mantras are regularly employed; two yantras are described.[1557] Tantric practices are referred to.[1558]

The names of the days of the week are known to Vaṅgasena.[1559]

The author

Vaṅgasena gives information about himself at the beginning and end of his work. Śiva, Caṇḍī and Sarasvatī are praised in the opening lines, which also provide us with the author's and his father's name, adding that Gadādhara, Vaṅgasena's father, was born in Kāntikā.[1560] The vaṅgasenotpatti at the end of Vaṅgasena's treatise opens as follows: "When Śrīkṛṣṇa, who had freed the earth of diseases, had left and had returned to his abode, it became filled with diseases and frightening again in a short time. On seeing this, I was born in the house of Gadādhara[1561] and made the earth healthy again". It ends with the words: "After being born in the house of Gadādhara, I redacted the work that was called *Agastisaṃhitā*[1562] before my birth. Thereafter it became well known under the name of *Vaṅgasena*. This book, being the quintessence of all the doctrines, will speedily confer success".

The identity of Vaṅgasena's father with one of the persons called Gadādhara who are known from Sanskrit medical literature is a matter of speculation, for information on his literary activity is entirely lacking. It is improbable, on chronological grounds, that Gadādhara, the father of Vaṅgasena, wrote the commentary on the *Suśrutasaṃhitā* or the *Vaidyaprasāraka*, but Vaṅgasena's probable date does at least not conflict with identifying his father with Vaidyagadādhara or Gadādharavaidya, quoted in Śrīdharadāsa's *Saduktikarṇāmṛta*, compiled in 1205.[1563]

It is commonly assumed that Gadādhara and Vaṅgasena were of Bengal origin.[1564] Gadādhara's birthplace has been identified as Kāñjivillī in Rāḍha (Western Bengal)[1565] and Kāntinagara of the Muzaffarpur district in Bengal.[1566]

Apart from the *Cikitsāsārasaṃgraha*, no other works by Vaṅgasena are known.[1567]

Date

It has long been known that Vaṅgasena cannot be dated later than the first half of the thirteenth century, on account of the dates of some early MSS.[1568] J. Jolly claimed that he might have been a contemporary of king Lakṣmaṇasena of the Sena dynasty.[1569] P.K. Gode considered him to have lived in the twelfth century at the latest, basing this view on quotations from Vaṅgasena in Hemādri's commentary on the *Aṣṭāṅgahṛdayasaṃhitā*.[1570] As Hemādri lived in the second half of the thirteenth

century and P.K. Gode assumed a rather long interval of seventy-five years between the two, his conclusion was rejected by N.N. Das Gupta[1571] and H.V. Trivedi,[1572] who placed Vaṅgasena in the thirteenth century. D. Ch. Bhattacharyya discovered later that the *Vaṅgasenasaṃgraha* is quoted by Niścalakara,[1573] which lowers the date to the period before A.D. 1150–1200.[1574] Vaṅgasena is assigned to the period 950–1050 by Rām Kumār Rāy and Rājīv Kumār Rāy.[1575]

Evidence concerning Vaṅgasena's chronological position is, as appears from the foregoing, of diverse kinds. Apart from the early MSS, which remain valuable testimonies, it derives from the text of his treatise and quotations from it in later treatises. The contents of the *Cikitsāsārasaṃgraha* show that Vaṅgasena was posterior to Mādhava, the author of the *Rugviniścaya*, which work he largely utilized, and Vṛnda, from whose *Siddhayoga* he borrowed. The common assumption that Vaṅgasena took many recipes from Cakrapāṇidatta's *Cikitsāsaṃgraha*,[1576] although still to be tested, appears to be acceptable.[1577]

The sources specified by Vaṅgasena are of no avail in fixing his date. The rather developed state of rasaśāstra prohibits placing Vaṅgasena earlier than Cakrapāṇidatta, while the absence of the examination of the pulse as a diagnostic tool forces us to regard him as earlier than Śārṅgadhara.

A particular piece of internal evidence, namely the attribution of a formula to Śrīviśvarūpa,[1578] led P.V. Sharma to date Vaṅgasena in the reign of king Viśvarūpasena of the Sena dynasty, who acceded to the throne in A.D. 1205[1579] or 1206.[1580] This view is, however, contradicted by the early date of some quotations from Vaṅgasena,[1581] which are of considerable value in determining Vaṅgasena's terminus ante quem. Those found in Hemādri point to a date earlier than the second half of the thirteenth century; the single quotation in Ḍalhaṇa's commentary on the *Suśrutasaṃhitā* lowers the limit to about A.D. 1200, and, finally, the quotation in Niścalakara's *Ratnaprabhā* enables to conclude that Vaṅgasena lived in the period A.D. 1050–1100.[1582]

Vatseśvara

Vatseśvara wrote the *Cikitsāsāgara*,[1583] a compilation, which refers to the *Agnipurāṇa*, *Garuḍapurāṇa*, and Suśruta as sources. At the beginning of the work the author gives his geneology: he was the son of Deveśvara, son of Horeśvara, son of Bhūdharadatta, the younger brother of Vīreśvara, and, like the latter, a son of Devāditya. Vatseśvara held, like the members of his family mentioned by him, the position of a minister at a royal court.[1584]

Vīreśvara's son Caṇḍeśvara, Vatseśvara's great-uncle, was a well-known dharmaśāstrin, who served king Harasiṃhadeva of Mithilā, and who, in A.D. 1314, gave away his weight in gold on the banks of the river Vāgvatī (the modern Bagmati) in Nepal.[1585]

Being of the generation of Caṇḍeśvara's grandchildren, Vatseśvara flourished about A.D. 1360.[1586]

Vīrasiṃha

The *Vīrasiṃhāvaloka*[1587] by Vīrasiṃha is a treatise which describes the aetiology and therapy of each group of diseases in three entirely different ways, according to the principles of astrology,[1588] karmavipāka, and medicine.

Contents

The work is written in a mixture of verse and prose, the latter being chiefly found in the parts dealing with astrology and karmavipāka. After two introductory verses and some introductory prose, the author gives a list of the diseases that will be dealt with. Their order agrees with the *Mādhavanidāna*, apart from the following alterations and additions. A chapter on jvarātīsāra has been added after that on jvara, one on mahonmāda after that on pānātyaya,[1589] and one on vardhma after that on antravṛṣaṇamuṣkaroga.[1590] The chapter on kṣudrarogas is divided into two parts, the first of which is concerned with a short series of these disorders and their treatment, along the lines of books on karmavipāka: valmīka, jvālāgardabha,[1591] pāṣāṇagardabha, carmakīla or kīlakavraṇa, vaikṛtyaroga[1592] and avijñātaroga.[1593] The second part is about the medical treatment of thirty-four kṣudrarogas. The chapter on yonivyāpad is followed by one on garbharakṣā, describing the measures to be taken during the ten months of pregnancy, and the treatment of disorders of lactation. The chapter on strīroga is concerned with stanasphoṭa,[1594] mūḍhagarbha and yonikanda. Chapters on bālaroga and viṣa end that part of the treatise which is arranged in agreement with the *Mādhavanidāna*.

Eleven more chapters follow, not listed in the table of contents at the beginning of the work; they are about rasāyana, vājīkaraṇa, sneha, sveda, vamana, vireka, anuvāsana, nirūha, dhūma, nasya, and kavala. The treatise ends with a miśraka chapter, enumerating the best medicine in each disorder and describing weights and measures. At the end the author gives some information about himself.

The composition of the *Vīrasiṃhāvaloka* is somewhat uneven. Its sections on astrology and karmavipāka precede those devoted to medicine in its strict sense, and appear to be regarded as more important than the latter.[1595] Therapy was a greater concern of the author than nidāna. His chief source regarding therapy was Vṛnda's *Siddhayoga*, while most verses on nidāna were taken from Mādhava's *Rugviniścaya*, though these are sometimes interspersed with verses of unknown origin.[1596]

Vīrasiṃha specifies his sources in many instances. The following works and authors are quoted or referred to: *Ārogyacintāmaṇi* (47),[1597] *Bārhaspatya* (189), Baudhāyana (many times), Bheda (128), *Brahmagītā* (36),[1598] *Brahmāṇḍapurāṇa* (65, 101, 119, 163, 238, 260, 262, 294), *Brahmapurāṇa* (239), Caraka (17, 74, 110, 162, 294), *Cikitsākalikā*[1599] (72),[1600] Dāmodara (47), Gārgya (4), *Garuḍapurāṇa* (59), Gautama (32, 210), *Gautamīya* (256), Hārīta (2, 75), *Jātaka* (many times), *Kalikā*[1601] (26,[1602] 38,[1603] 72, 111),[1604] *Kalyāṇakāraka* (117), Kātyāyana (238), *Kūrmapurāṇa* (260), *Liṅgapurāṇa* (221), *Mahābhārata* (66, 78, 119, 219), *Mahādevabhāṣya* (277), *Maheśvaratantra* (4),[1605] *Mānava* (189), *Nāradīyapurāṇa* (273), *Nāradīyavacana* (190), *Padmapurāṇa* (27, 32, 36, 64, 94, 152, 174, 201, 261), *Pitāmahasaṃhitā* (279),

Ṛgvidhāna (43, 238), *Rugviniścaya* (many times), *Śaṃkaragītāḥ* (119), *Sārāvalī* (2, 27, 31), *Śātātapīya Karmavipāka* (91), Śaunaka (51–53), *Śivagītā* (32), Śrīpati (27, 32, 36, 58, 91, 289), Suśruta (6, 42, 60, 69, 84, 86, 93, 95, 97, 102, 164, 253, 256, 274), Triśaṭhācārya (7–9),[1606] *Umāmaheśvarasaṃvāda* (77, 101, 118), Vācaspati (118),[1607] Vāgbhaṭa (21, 23, 35), *Vārāha* (209), *Vāyupurāṇa* (79, 119, 158, 166, 217, 273, 278), Viṣṇu (184, 239), *Vṛddhabaudhāyana* (179–210), *Vṛddhagautama* (53, 166), *Vṛddhaparāśara* (43), *Vṛndasaṃgraha* (many times), and *Yogaratnāvalī* (48).[1608]

The *Vīrasiṃhāvaloka* is quoted by Devasiṃha Viṭṭhal in his *Bṛhadāsavāriṣṭasaṃgraha*, Karandīkar in his *Nidānadīpikā*,[1609] Meghamuni in his *Meghavinoda*,[1610] Trimalla in his *Yogataraṅgiṇī*, and in the *Yogaratnākara*; it was probably used by Śārṅgadhara in the composition of his *Triśatī*.

Special features

Unusual names of diseases mentioned in this work are mahonmāda (100–101), vaikṛtyaroga (239), avijñātaroga (239), and stanasphoṭa (288–289). Thirty-four kṣudrarogas are mentioned (239–244), whereas their number is thirty-six in the works ascribed to Vāgbhaṭa, forty-four in the *Suśrutasaṃhitā* and *Mādhavanidāna*.

The author

At the end of the work the author, who calls himself a lion among the kings, mentions that his name is Vīrasiṃha and that he is of Tomara lineage. His father was Devavarman and his grandfather Kamalasiṃha.

The Tomaras were a Rājput clan who founded a dynasty in Gwalior in 1375.[1611]

Vīrasiṃha dictated his treatise to a kāyastha named Sāraṅga.[1612]

Two more works by an author called Vīrasiṃha are an *Āyurveda*[1613] and the *Nṛsimhodaya*.[1614]

The author of the *Vīrasiṃhāvaloka* is sometimes credited with the *Durgābhaktitaraṅgiṇī*.[1615]

Date

The *Vīrasiṃhāvaloka* was completed in A.D. 1383.[1616]

Viśvanātha

Viśvanātha was the author of the *Pathyāpathyaviniścaya*[1617] or *-vinirṇaya*[1618] and the *Cikitsārṇava*.[1619]

(1) *Pathyāpathyaviniścaya*.[1620]

After a maṅgala addressed to Śiva and some stanzas which introduce its subject, this treatise, consisting of 611 verses, enumerates which substances are beneficial or harmful in a series of diseases (9–556) and in the six seasons (557–583). Towards the end, after some verses on basic principles of therapy, it mentions the disorders dealt with in the work (587–594). An appendix (pariśiṣṭa) is concerned with the actions of the tastes and the effects of overindulgence in substances with a particular taste (595–607); it concludes with some general verses (608–610). The book ends with information on the author (611).

Mādhava's arrangement of the diseases is for the greater part adopted. The remedial measures and medicinal substances mentioned by Viśvanātha are almost completely of a classical āyurvedic type. Musk is known to him.[1621] Opium is not prescribed. Cannabis may form part of Viśvanātha's materia medica.[1622]

The verses on jvara mention taruṇa- (9 and 12–13), madhyama- (14–16), and purāṇajvara (31–34); those on atīsāra refer to jvarātīsāra (58–59). Homage to Śiva is recommended in insanity caused by devas, etc. (232). The disorders called bradhna and vṛddhi are mentioned together (373–377). Remedial measures of a religious nature are not referred to in the verses on masūrikā (459–464). The verses on gynaecology and obstetrics are arranged around the following subjects: pradara and yonivyāpad (495–407), pregnancy (498–507), and puerperal diseases (sūtikāroga, 508–517). Viṣaroga is followed by verses on mixtures of diseases (rogasaṃkara, 531–532), vātaroga (533–543), pittaroga (544–550), and kapharoga (551–556). Surgical measures, especially cautery (dāha)[1623] and venesection,[1624] are frequently recommended. The tailadroṇī is twice referred to.

Worthy of notice are the following words: pacelima (16; 180); roṭikā (a kind of bread; 24); names of plants like kañcaṭa (68; 120), methī (94), and peṭī (191; 214; 239; 253); names of fishes such as bhākura (536), ceṅga (172), ḍiṇḍiśa (51), gargara (249; 536), illiśa (172; 249), kavayī (172; 249), khaliśa (68), khuḍḍīśa (68; 250), madhurālikā (51; 68; 172), parvata (249), proṣṭī (172), rohita (250), śilīndhra (249), śṛṅgin (250), toḍīmatsya (48), varmī (250), and the word for shrimp, ciṅgaṭa (118).

Geographical names found in the work are Mahendragiri (363), Pāriyātra (389), and Sahyādri (436).

(2) No details are available on Viśvanātha's second work, the *Cikitsārṇava*.[1625]

The author

Viśvanātha[1626] mentions at the end of his *Pathyāpathyaviniścaya* (611) that he was a great-grandson of Umāpati, grandson of Tapana,[1627] who was a leading poet and physician, and son of Gaurīnarasiṃhasena.[1628]

Date

Viśvanātha is said to have written his *Pathyāpatha* at the court of Pratāparudra, the Gajapati king of Orissa[1629] (A.D. 1497–1540),[1630] who was a contemporary and disciple of Caitanya (A.D. 1486–1533), one of the mediaeval Vaiṣṇava saints of India.[1631]

The *Mahārnava* or *Madanamahārṇava* compiled by Viśveśvarabhaṭṭa

The *Mahārnava* or *Madanamahārṇava*,[1632] attributed to Māndhātar,[1633] son of Madanapāla,[1634] was actually compiled by Viśveśvarabhaṭṭa.[1635]

Contents
This large treatise, in a mixture of verse and prose, arranged in forty chapters (taraṅga),[1636] is a compilation[1637] which deals exclusively with karmavipāka, the retribution of acts committed in former existences, a subject that belongs rather to dharmaśāstra than to medicine,[1638] although it is sometimes dealt with in medical treatises. Remedial actions of a religious nature (prāyaścitta, dāna, homa, bali, stotra, mantra, etc.) against a long series of diseases are described in that context (chapters eight to forty).[1639]

Illness is divided into three types: arising from karman, from the doṣas, and from the combined actions of these two.[1640] Diseases arising from bad karman are of three types again: resulting from mahāpātaka or mahāpāpa, upapāpa, and pāpa, lasting respectively during seven, five and three successive births; mahāpāpa gives rise to kuṣṭha, rājayakṣman, prameha, grahaṇī, mūtrakṛcchra, aśmarī, kāsa, atisāra, bhagandara, duṣṭavraṇa, gaṇḍamālā, pakṣaghāta, and akṣināśana, upapāpa to jalodara, yakṛt, plīhan, śūla, śopha, vraṇa, śvāsa, ajīrṇa, jvara, chardi, bhrama, moha, galagraha, raktārbuda, and visarpa, pāpa to valmīka, puṇḍarīka, etc.[1641]

The *Mahārṇava* is quoted by Allāḍanātha,[1642] Raghunandana in his *Kṛtyatattva*,[1643] Śrīnātha, and others.[1644]

Special features
Several varieties of śūla (chapter nine), vraṇa (chapter fifteen) and sphoṭa (chapter fifteen) are mentioned; the term gunma is used instead of gulma (chapter twenty-seven); lūtakitva (chapter thirty-six) may designate a disorder related to lūtāvraṇa; unusual types of kuṣṭha are referred to (chapter thirty-seven): hīna-, rakta-, pīta-, gunma-, kṛṣṇa-, kaṭi-, netra-, and śvetakuṣṭha; ākasmikakārśya is mentioned (chapter thirty-nine); many grahas are enumerated which are for the greater part not met with elsewhere (chapter forty): prajā-, jvara-, pratuṇḍa-, kāmila-, kālanāyaka-, pitṛ-, lokāyata-, āpastamba-, vṛtra-, mahājvara-, kumbhaka- or jambhaka-, kapila-, śivapāda-, ūrdhvakeśi-, viṣṭambha- or vivṛtākṣa-, mahājihvā-, nava-, vāsava- or vāyasa-, kṣetrapāla-, acala-, hastipāda-, karṇa-, dhana-, avatola-, kṛśa- or śaśi-, skanda-, skandāpasmāra-, śiśu-, and meṣagraha.

The author
Viśveśvara, of Kauśikagotra, was the son of Pedibhaṭṭa[1645] and Ambikā, and a pupil of Vyāsāraṇyamuni. Originating from Southern India, as appears from his father's name, he migrated to Northern India in search of patronage. Viśveśvara won the admiration of the Reḍḍi kings and was the poet laureate of the Recarla king Siṅgabhūpāla (A.D. 1386–1412), according to P. Hymavathi.[1646] He is regarded as one of the leading authorities of the Benares school of modern Hindu Law.[1647]

Date
The *Mahārṇava* probably dates from 1360–1390, i.e., the period of Viśveśvarabhaṭṭa's literary activity.[1648]

Vopadeva

Vopadeva[1649] was the author of at least three medical works:[1650] (1) *Siddhamantraprakāśa*,[1651] a commentary on his father's *Siddhamantra*; (2) *Hṛdayadīpika*,[1652] a nighaṇṭu; (3) *Śataślokī*,[1653] a collection of recipes accompanied by an auto-commentary, the *Candrakalā*.[1654]

A commentary on the *Śārṅgadharasaṃhitā*, called *Gūḍhārthadīpikā*, commonly ascribed to Vopadeva[1655] on the authority of Weber[1656] and Aufrecht,[1657] is not his work, for its text, as recorded by Weber, is identical with Kāśīrāma's *Gūḍhārthadīpikā* on the *Śārṅgadharasaṃhitā*.[1658]

Vopadeva was a prolific author, who also produced treatises on grammar (*Kavikalpadruma* with an auto-commentary called *Kāvyakāmadhenu*; *Mugdhabodha*), on dharmaśāstra (*Triṃśacchlokī*; *Paraśurāmapratāpaṭīkā*), and on the *Bhāgavatapurāṇa* (*Harilīlā*, an abstract of this Purāṇa; *Muktāphala*, a summary of its teaching), etc.[1659] His versatility is revealed by a verse at the end of the *Muktāphala*, in which he claims to have composed ten works on grammar, nine on medicine, one on tithinirdhāra (i.e., jyotiṣa), three on sāhitya, and three on the *Bhāgavatapurāṇa*.[1660] Even the *Bhāgavatapurāṇa* itself has been attributed to Vopadeva.[1661]

(1) The *Siddhamantraprakāśa* is an elaborate and valuable commentary.[1662] Its exposition on the terms rasa, vipāka, vīrya, and prabhāva[1663] is theoretically important, amongst other things on account of the view that the effect of prabhāva is not due to natural factors inherent in a medicinal substance (svābhāvikabala), but to an extra, especially conditioned factor (aupādhikabala). Noteworthy is also the digression on the term udāsīna[1664] (i.e., neutral with respect to the doṣas), used by Keśava in order to harmonize mutually conflicting statements of Caraka, Suśruta, and Khāraṇādi. Vopadeva declares that only the works of Caraka, Suśruta, and Vāgbhaṭa can be accepted as authoritative, due to their completeness, the continuity of their tradition, and the scholarly commentaries available.[1665] The identity of plants, animals, etc., enumerated by Keśava, is elucidated by his son by means of synonyms and, rather frequently, by vivid descriptions based on morphological and other characteristics,[1666] which enhances the value of this remarkable work.

Though many earlier treatises consulted by Vopadeva are quoted by name, it remains difficult to assess who were his foremost authorities. P.V. Sharma demonstrated that Ḍalhaṇa's *Nibandhasaṃgraha* comes first, followed by the *Aṣṭāṅganighaṇṭu* and Cakrapāṇidatta's *Āyurvedadīpikā*.[1667]

Vopadeva quotes the commentaries of Hariścandra and Jejjaṭa. Other authorities and works cited are: Amara, Asaṃkara,[1668] Bāṣpacandra, Hārīta,[1669] Khāraṇādi, Mādhava,[1670] Nala,[1671] Rāghava, and Rudrabhaṭṭa or Rudraṭa,[1672] as well as a *Kārttikeyapurāṇa* and a *sūdaśāstra*.[1673]

The *Siddhamantraprakāśa* is quoted in Priyavrat Śarmā's auto-commentary on the *Dravyaguṇasūtra* and Śivadatta's auto-commentary on the *Śivakoṣa*.[1674]

(2) The *Hṛdayadīpaka*, called a nighaṇṭu by the author himself,[1675] was written in order to clarify the medicinal substances occurring in *Svalpavāgbhaṭa*[1676] and other works,[1677] which calls to mind Vāgbhaṭa's prominent position as an authority for Vopadeva.

The work consists of 176 verses in a variety of metres (the anuṣṭubh predominating), arranged in eight vargas, and presents mostly names of drugs. The arrangement of the subject matter resembles that of the *Paryāyaratnamālā*.

Vargas one to four treat of substances the synonyms of which can be arranged in four (catuṣpādavarga), three (tripādavarga), two pādas (dvipādavarga) or one pāda (ekapādavarga); vargas five and six enumerate drugs with two names (dvināmavarga) or one name (ekanāmavarga); varga seven (nānārthavarga) forms the homonymic section; varga eight (miśrakavarga), of a heterogeneous character, is concerned with articles of diet, medicinal preparations, nosological terms, pañcakarman, paribhāṣā, etc.

Vopadeva's descriptions are sometimes similar to those of the *Amarakoṣa*.[1678] Some of Vopadeva's drugs are absent from the *Bṛhattrayī*, e.g., asthisaṃhāra (75), babbūla (128), hijjala (127), and jalakanda (111).

The *Hṛdayadīpaka* is quoted by Raghunātha in his *Bhojanakutūhala* and Śivadatta in the auto-commentary on his *Śivakoṣa*.[1679]

A supplement to the *Hṛdayadīpaka*, called *Paripūrti*, was written by Nāganātha.[1680]

(3) The *Śataślokī* counts 101 verses in various long metres. Apart from the introductory and closing lines there are ninety-six stanzas describing well-known formulae, which are divided into six adhikāras of sixteen verses each, devoted to six types of preparation, namely cūrṇa, guṭikā, leha, ghṛta, taila, and kvātha.

The *Śataślokī* is provided with a commentary by Vopadeva himself, called *Candrakalā*, as indicated by the author at the end of his work.[1681] This commentary gives synonyms of the substances going into a compound medicine and specifications about the way to prepare it. Another commentary, written by Veṇīdatta, son of Bhogin, grandson of Vāsudeva, is called *Bhāvārthadīpikā*.[1682] A Hindī commentary (stabaka) on the *Śataślokī* was composed in Pālī in Mārvāṛ, in 1774/75, by Rāmavijaya Upādhyāya, pupil of Dayāsiṃha of the Kharataragaccha.[1683] Another Jain monk, Cainasukha of the Kharataragaccha, pupil of Lābhanidhāna, wrote, in A.D. 1763/64, a commentary on it in Rājasthānī.[1684]

Vopadeva's *Candrakalā* is referred to by Śivadāsasena in his commentary on the *Cakradatta*.[1685] The *Śataślokī* is quoted by Kāśīrāma in his commentary on the *Śārṅgadharasaṃhitā*[1686] and in the *Yogaratnākara*.[1687] Vopadeva is referred to in Śailendrasiṃha's *Vaidyacintāmaṇibhaiṣajyasaṃgrahaya*.[1688] Unspecified works of Vopadeva are quoted in Hārāṇacandra's commentary on the *Suśrutasaṃhitā*, Kāśīrāma's commentary on the *Śārṅgadharasaṃhitā*,[1689] Narahari's *Vāgbhaṭamaṇḍana*,[1690] and the *Tāmbūlamañjarī*.

The author

Vopadeva was the son of Keśava and the pupil of Dhaneśa;[1691] he lived, as his father did, in Vedapada.[1692] He was a paṇḍit to the Yādava king Mahādeva (1260–1271) and a friend of Hemādri.[1693] The close association between Vopadeva and Hemādri is attested by the latter's commentaries on Vopadeva's *Muktāphala* and *Harilīlā*.[1694] Vopadeva wrote his *Harilīlā* and *Muktāphala* at the request of Hemādri[1695] and may also have composed a biography of the latter in the last phase of his life.[1696] Hemādri shared Vopadeva's predilection for Vāgbhaṭa and was the author of a commentary on the *Aṣṭāṅgahṛdayasaṃhitā*.

Date

Vopadeva's association with the court of Mahādeva proves that he lived in the second half of the thirteenth century.[1697]

Part 8

Authors and works from the 16th to the 20th centuries

Chapter 1
Sixteenth-century authors and works

Ānandabhāratī Yatīndra

Ānandabhāratī Yatīndra, also called Ānanda(bhāratī)siddha and Yogasiddha, pupil of Nṛsiṃhabhāratī, was the author of a work known as *Ānandamālā(rasasāra)* or *Ānandamālikā*; this work is also referred to under the titles *Vaidyakasārasaṃgraha*, *Yogajñāna*, *Yogamālā*, and *Yogaśāstra*.[1]

The full extent of this treatise is not known and the order of the chapters varies in the MSS. Subjects dealt with in one of the MSS[2] are: kvātha, rasa, cūrṇa, guṭikā, pralepa, avaleha, āsava, ghṛta, taila, añjana, dhātuśodhanamāraṇa, virecana, and nakṣatrarogagaṇanā. Another MS,[3] described as chiefly concerned with rasayogas, takes into consideration other types of medicines too.[4]

Caraka, Suśruta and the *Rasaratnākara* are referred to.[5]

The *Ānandamālā* is quoted in Ananta's *Pratāpakalpadruma*, Vācaka Dīpacandra's *Laṅghanapathyanirṇaya*, and an anonymous *Pākārṇava*.

The author and his date

Ānandabhāratī's name informs us that he was a monk of the Daśanāmī order.[6] Both Ānandabhāratī and his teacher Nṛsiṃhabhāratī are called paramahaṃsaparivrājakācārya.[7]

The period in which Ānandabhāratī lived is elucidated by the references to the *Rasaratnākara*, dating from the first half of the fifteenth century, and the date of one of the BORI MSS of the *Ānandamālā*, A.D. 1660.[8] Nṛsiṃhabhāratī, the guru of Ānandabhāratī, has tentatively been identified by P.K. Gode[9] as the person of that name who was also the preceptor of Durvāsabhāratī[10] and Viśvarūpabhāratī.[11] Nṛsiṃhabhāratī can be assigned to the period 1475–1550, which establishes that Ānandabhāratī must have written his work in the earlier part of the sixteenth century.

Bhāvamiśra

Bhāvamiśra[12] was the author of (1) the *Bhāvaprakāśa*, (2) the *Guṇaratnamālā*, and (3) a commentary on the *Mādhavanidāna*.[13]

The Bhāvaprakāśa

(1) The *Bhāvaprakāśa*[14,15] is a voluminous compilation of an encyclopaedic character that belongs to the smaller authoritative triad called *Laghutrayī*.[16] It consists of three

khaṇḍas and a nighaṇṭu. The first khaṇḍa is divided into a first part (1,157 verses) which has six prakaraṇas, the nighaṇṭu (2,062 verses), and a second part (1,025 verses) that forms the seventh prakaraṇa.

Prakaraṇa one contains Bhāvamiśra's version of the descent of āyurveda, a version that differs in some respects from its parallels in the *Caraka-* and *Suśrutasaṃhitā*. It is not Bharadvāja who goes first to the abode of Indra and receives the āyurveda, but Ātreya, followed later by Bharadvāja;[17] Caraka figures in the story as an incarnation of Śeṣa,[18] born on earth in order to free mankind from diseases; his saṃhitā is said to be based on the works of the six disciples of Ātreya. Dhanvantari also receives the āyurveda from Indra and is, on the latter's request, born as Divodāsa, king of Kāśī; Viśvāmitra and other sages, recognizing Divodāsa as an incarnation of Dhanvantari, send their sons to him for instruction; after completing their studies, these sons return home; Suśruta, the son of Viśvāmitra, is the first among them to write a tantra.

Prakaraṇa two is a condensed version of the Sāṃkhya philosophy in its classical form. Prakaraṇa three is concerned with embryology and anatomy; the doṣas, dhātus, marmans, etc., are also dealt with. Prakaraṇa four is about the care for a newborn child and about the constitutions. Prakaraṇa five forms a long and detailed description of svasthavṛtta (dinacaryā, rātricaryā, ṛtucaryā). Prakaraṇa six (miśraprakaraṇa) deals, as its name suggests, with various subjects: types of diseases, the four pillars of treatment (catuṣpād), rules for the collection and inspection of drugs, substitutes for particular drugs, the qualities and effects of the tastes, definitions of various effects of drugs, definitions of vīrya, vipāka and prabhāva.

The *Bhāvaprakāśanighaṇṭu*[19] is arranged in twenty-three groups (varga) of substances: harītakyādi (1), karpūrādi (2), guḍūcyādi (3), puṣpa (4), vaṭādi (5), āmrādi (6), dhātvādi (7), dhānya (8), śāka (9), māṃsa (10), kṛtānna (11), vāri (12), dugdha (13), dadhi (14), takra (15), navanīta (16), ghṛta (17), mūtra (18), taila (19), saṃdhāna (20), madhu (21), ikṣu (22), and anekārtha (23).

The seventh prakaraṇa is subdivided into seven parts which deal respectively with weights and measures (1), rules for various pharmaceutical preparations (2), the śodhana and māraṇa of the dhātus, the yantras, the śodhana and māraṇa of the upadhātus, some saṃskāras for the preparation of mercurial compounds, the preparation of rasakarpūra and sindūrarasa, the śodhana and māraṇa of the uparasas and ratnas, the viṣas and upaviṣas (3), snehapāna (4), pañcakarman (5), dhūmapāna, gaṇḍūṣa, etc. (6), and rogiparīkṣā (7).

The second (5,883 verses) and third (95 verses) khaṇḍa form together the eighth prakaraṇa on therapy (cikitsā), divided into seventy-three chapters, for the major part in the order of the *Mādhavanidāna*. Deviations from this order and additions are: a separate chapter on jvarātisāra (3), the unusual position of the chapter on amlapitta and śleṣmapitta (10) between raktapitta and rājayakṣman, separate chapters on pittavyādhi (27) and śleṣmavyādhi (28) between āmavāta and vātarakta, a separate chapter on plīhayakṛdroga (33) between gulma and hṛdroga, and on kārśya (40) after sthaulya (= medoroga), the description of bradhna in the chapter on vṛddhi (43), a separate chapter on liṅgārśas (52) between upadaṃśa and śūkadoṣa, on snāyuroga (57) between visarpa and visphoṭaka, and on phiraṅgaroga (59) after visphoṭaka, the description of śītalā in

the chapter on masūrikā (60), a separate chapter on somaroga and mūtrātisāra (69) between strīroga and yoniroga, the description of yonikanda in the chapter on yoniroga (70), and the addition of two chapters on vājīkaraṇa (72) and rasāyana (73), which form together the third khaṇḍa.

The chapters on therapy begin with verses on nidāna which are largely taken from Mādhava's *Rugviniścaya*; verses from other sources have been added rather frequently. The verses on treatment give precedence to āyurvedic prescriptions, which are followed by iatrochemical formulae (rasayogas).[20]

Authorities referred to in the text of the treatise itself are: Agniveśa (7³.140–143; cikitsā 1.762), Bhairavānanda (cikitsā 72.29–30),[21] Candramauli (3.18),[22] Caraka (*Nighaṇṭu*, dhānyavarga 40), Dhanvantari (3.325; 4.5) Hārīta (*Nighaṇṭu*, vāri 75–76; cikitsā 54.137–141),[23] Jaijjaṭa (*Nighaṇṭu*, dugdha 32), and Suśruta (3.65; *Nighaṇṭu*, dhānyavarga 40).

Sources mentioned in ed. m are: Agniveśa (cikitsā 1.762), Ātreya (cikitsā 1.30), *Cakradatta* (cikitsā 1.26 and 245; 24.265–272), Caraka (passim), Dhanvantari (cikitsā 1.272), Hārīta (7³.139; cikitsā 1.19–20), *Kāśīkhaṇḍa* (cikitsā 60.70–82), Kāśyapa (cikitsā 6.30), *Rasāmṛta* (7³.199), *Rasapradīpa* (7³.21–24; cikitsā 1.579–581 and 582–586), *Rasaratnapradīpa* (cikitsā 1.191–192 and 612–615; 6.95–98), *Rasendracintāmaṇi* (cikitsā 1.587–588 and 608–611; 6.90–94; 11.81–85), *Ratnamālā*[24] (*Nighaṇṭu*, dhātvādi 188), Śārṅgadhara (3.212; cikitsā 11.86–90), Suśruta (passim), Vāgbhaṭa (passim), *Viṣṇudharmottara* (*Nighaṇṭu*, dhātvādi 168–169), Viśvāmitra (cikitsā 71.139), *Vṛddhasuśruta* (*Nighaṇṭu*, vāri 65–67; cikitsā 1.78), *Vṛddhavāgbhaṭa* (5.10–11), and *Vṛndaṭīkā* (cikitsā 1.235–236 and 249–251).

Sources mentioned in the glosses (ṭippaṇī) of ed. m are: Amara (7³.27; cikitsā 1. 245 and 671; 2.5; 24.20), Amarasiṃha (6.13; cikitsā 1.660; 24.75; 71.140–141), Bhoja (3.146 and 178; 5.317; cikitsā 19.14; 46.19; 54.28 and 46; 66.29), *Cakradatta* (cikitsā 1.93 and 99), Caraka (passim), Dhanvantari (cikitsā 1.208), *Dhanvantarinighaṇṭu* (cikitsā 1.93; 5.63; 43.35; 44.32), *Dravyaguṇagrantha* (cikitsā 1.684),[25] Dṛḍhabala (cikitsā 1.440–444), Gadādhara (cikitsā 1.119 and 440–444; 63.52), Gayadāsa (3.146; cikitsā 32.5; 34.2), *Guṇaratnamālā* (cikitsā 24.1–2), Hārīta (cikitsā 1.30, 99, 401 and 541; 46. 18), Jaiyaṭa (cikitsā 1.734–735), Jatūkarṇa (cikitsā 1.98), Jejjaṭa (cikitsā 1.9; 6.32; 24. 215–219; 32.5 and 17–18), Kārttika (cikitsā 1.119 and 401; 63.52), Kārttikakuṇḍa (cikitsā 1.9), Kharanāda (cikitsā 1.99 and 724), Madanapāla (7⁶.233–234; cikitsā 1.111; 5. 63), *Madhukoṣa* (3.123), Medinīkāra (cikitsā 1.36), *Nighaṇṭu*[26] (7⁶.225; cikitsā 1.625), *Rasapradīpa* (3.123; cikitsā 1.415–417, 598–601 and 602–604; 8.35–38), *Rasaratnākara* (cikitsā 1.180–181), Suśruta (passim), Śārṅgadhara (cikitsā 11.86–90), Vāgbhaṭa (passim), Vaideha (cikitsā 1.2), Vaṅgasena (cikitsā 1.93 and 578), Videha (cikitsā 1.703 and 800; 63.14, 77, 105, 125 and 128; 65.18), *Viśvaprakāśa* (cikitsā 72.3), *Vṛddhavāgbhaṭa* (3.82 and 201; cikitsā 1.107), Vṛnda (cikitsā 1.93), *Vṛndaṭīkā* (cikitsā 1.235–236 and 249–251), and Vyāsa (5.305–306).[27]

Numerous sources, in ed. m and in the ṭippaṇīs, are indicated by means of references to anye, eke, granthāntara, etc.

Important sources have often remained unmentioned: *Dhanvantarīyanighaṇṭu*,[28] Madanapāla,[29] *Rājanighaṇṭu*,[30] *Rasaratnākara*,[31] Śārṅgadhara,[32] Vaṅgasena,[33] and the

Yogaśataka.[34] Bāpālāl claimed that Bhāvamiśra borrowed from Kaiyadeva.[35]

Bhāvamiśra or the *Bhāvaprakāśa* are quoted in Aghoranātha's commentary on his *Bhiṣaksarvasva*, Ambikādattaśāstrin's commentary on the *Rasendrasārasaṃgraha*, Ananta's *Pratāpakalpadruma*, the *Ārogyāmṛtabindu*, the commentary on the *Āyurvedābdhisāra*, the *Āyurvedīya Khanijavijñāna*, Baladeva Prasāda Miśra's *Āyurvedacintāmaṇi*, Bhānuji Dīkṣita's commentary on the *Amarakoṣa*, the *Bṛhannighaṇṭuratnākara*, Devasiṃha Viṭṭhal's *Bṛhadāsavāriṣṭasaṃgraha*, Vācaka Dīpacandra's *Laṅghanapathyanirṇaya*, Gaṇanāthasena's commentary on his own *Siddhāntanidāna*, Gulrājśarmamiśra's *Viśikhānupraveśavijñāna* and commentary on the *Āyurvedaprakāśa*, Haridattaśāstrin's commentary on the *Rasataraṅgiṇī*, Hariprapanna's *Rasayogasāgara*, Jīvānandavidyāsāgara's commentaries on Kaṇāda's *Nāḍīvijñāna* and Gopālakṛṣṇa's *Rasendrasārasaṃgraha*, Jñārasarāmaśarman's *Anupānadarpaṇa*, Kṛṣṇadatta's commentary on Trimalla's *Śataślokī*, Mādhava Upādhyāya's *Āyurvedaprakāśa*, Mallinātha's commentary on the *Amarakoṣa*,[36] Mauktika's *Vaidyamuktāvalī*, Meghamuni's *Meghavinoda*,[37] the *Nāsīrasāhī Kaṅkāligrantha*,[38] Nirañjanaprasāda Gupta's *Pāradasaṃhitā*, the *Pākārṇava*, Raghunātha's *Bhojanakutūhala*, Rājeśvaradatta Miśra's *Svasthavṛttasamuccaya*, Raṅgajyotirvid's *Vicārasudhākara*, the *Rasadhātuprakāśa*, the *Rasatattvavivecana*, Priyavrat Śarmā's auto-commentaries on his *Āyurvedadarśana* and *Dravyaguṇasūtra*, Satyadeva Vāsiṣṭha's commentary on Rāvaṇa's *Nāḍīparīkṣā*, Āśubodha and Nityabodha Senagupta's commentary on the *Rasaratnasamuccaya*, Śivadatta's commentary on his *Śivakoṣa*, Śivamiśra's *Vaidyaśāstraśivānubhava*, Somadevaśarman's commentary on the *Āyurvedaprakāśa*, Sukhānanda's commentary on Lolimbarāja's *Vaidyajīvana*, Hazārīlāl Sukul's commentary on the *Rasaratnasamuccaya*, Trimalla's *Bṛhadyogataraṅgiṇī*, Vidyāpati's *Vaidyarahasya*, Vinodalālasena's *Āyurvedavijñāna*, Yādavjī Trikamjī's *Rasāmṛta*, the *Yogaratnākara*, a *Yogasaṃgraha*,[39] Yogendranātha's *Āyurvijñānaratnākara*, and Yogīndranāthasena's commentary on the *Carakasaṃhitā*.

Numerous verses of the *Bhāvaprakāśa* are found in Ṭoḍara's *Āyurvedasaukhya*. The *Bhāvaprakāśa* is one of the major sources of Pratāpasiṃha's *Amṛtasāgara* and Jñārasarāma's version of that work; it is also a source of Āryadāsa Kumārasiṃha's *Kvāthamaṇimālā*, the *Bheṣajasaṃhitā*, *Rasendrasambhava* and *Rasoddhāratantra*. Harṣakīrti is said to have borrowed some formulae from the *Bhāvaprakāśa*.[40] The *Bhāvaprakāśa* was one of the sources of Kalyāṇa's *Bālatantra* according to Vācaka Dīpacandra.[41]

The *Bhāvaprakāśanighaṇṭu* was one of the sources of Raghunāthajī's *Nighaṇṭusaṃgraha* and the major source of Āryadāsa Kumārasiṃha's *Mahauṣadhanighaṇṭu*. It is quoted in Gulrājśarmamiśra's commentary on the *Āyurvedaprakāśa*,[42] Haridattaśāstrin's commentary on the *Rasataraṅgiṇī*, the *Śāligrāmanighaṇṭubhūṣaṇa*, and Hazārīlāl Sukul's commentary on the *Rasaratnasamuccaya*.[43]

Commentaries on the Bhāvaprakāśa

Bhāvamiśra himself is reported to have written glosses (ṭippaṇī) on his *Bhāvaprakāśa*.[44] These glosses contain interesting information of diverse kinds: explanations which sometimes refer to the views of earlier authorities, quotations, various readings,[45] synonyms and vernacular names of drugs,[46] the relative quantities of the ingredients of some compound formulae,[47] vernacular names of diseases,[48] etc. Another commentary, incompletely preserved and called *Śrīraṇavīrasiṃhadevāvalokanasadvaidyasiddhāntaratnākara*, was written by Jayadeva, son of Jayakṛṣṇa, during the reign of king Raṇavīrasiṃha of Kaśmīr[49] who ascended the throne in 1857.[50]

Special features of the Bhāvaprakāśa

Special features of the *Bhāvaprakāśa* are: (1) the description of three nāḍīs, called respectively samīraṇā, cāndramasī and gaurī, in the female genitals (2.17–20);[51] the authority referred to on this subject is Candramauli; (2) the distinction of eight chief parts of the body (aṅga):[52] head, neck, arms, chest, belly, the lateral parts of the chest, back and backbone, legs (3.65–93); (3) the adoption of the kedārīkulyānyāya as the best model of the way in which the rasa nourishes the other dhātus (3.176); (4) the description of one kind of ojas, of the aṣṭabindu type (3.181–186); (5) the enumeration of the eight auspicious objects (aṣṭamaṅgala; 5.106);[53] (6) the description of the way to ward off the evil eye (dṛṣṭidoṣa; 5.131–132);[54] (7) the distinction of six types of food: cūṣya, peya, lehya, bhojya, bhakṣya and carvya (5.144);[55] (8) the ways to recognize the best kind of a number of drugs (6.111–120); (9) substitutes for a number of drugs (6.138–166);[56] (10) the statement that the chief (pradhāna) drug may not be substituted in compound formulae (6.167); (11) the description of the actions and effects of the twenty qualities of drugs (6.203–211); (12) the definitions of pācana, etc. (6.212–237);[57](13) the examination (parīkṣā) of a patient by means of darśana, sparśana and praśna (7⁷.1–22); darśana is divided into netra-, jihvā- and mūtraparīkṣā;[58] nāḍīparīkṣā[59] is described as a form of sparśana; (14) the description of three series of thirteen saṃnipāta fevers; the first series (cikitsā 1.449–491), taken from Vaṅgasena (jvara 354–383) for the greater part,[60] consists of vispharaka,[61] āśukārin, kampana, babhra,[62] śīghrakārin, bhallu,[63] kūṭapākala, saṃmohaka, pākala, yāmya, krakaca, karkaṭaka,[64] and vaidārika;[65] the second series (cikitsā 1.493–505),[66] for the major part from some unknown source,[67] consists of śītagātra, tandrika, pralāpaka, raktaṣṭhīvin, bhugnanetra, abhinyāsa, jihvaka, saṃdhiga, antaka, rugdāha, cittabhrama, karṇika, and kaṇṭhakubja; the third series (cikitsā 1.510–522),[68] consists of kumbhīpāka, prorṇunāva, pralāpin, antardāha, daṇḍapāta, antaka, eṇīdāha, hāridraka, ajaghoṣa, bhūtahāsa, yantrāpīḍa, saṃnyāsa, and saṃśoṣin; this series is also found, in different orders, in *Jvaratriśatī* (175–187), *Jvaranirṇaya* (4.102–115) and *Jvaratimirabhāskara* (7.308–337); (15) the description of a fever caused by the drinking of contaminated water (durjaladoṣajajvara; cikitsā 1.830–838); (16) the treatment of the ten complications of fever (cikitsā 1.840–863); (17) the description of six types of ajīrṇa (cikitsā 6.16–21) and their treatment (cikitsā 6.128–148); (18) a list of eighty disorders by vāta considerably differing from Caraka's list and consisting of:[69] śirograha (24.18), alpakṛśatā, atyarthajṛmbhā (24.20), hanugraha (24.24–25), jihvāstambha (24.43), gadgadatva (24.45), minminatva (24.45), mūkatā (24.45), vācālatā, pralāpa (24.51), rasānabhijñatā (24.53), bādhirya, karṇanāda, sparśājñatva (24.59: tvakśūnyatā or suptavāta), ardita (24.60–63), manyāstambha (24.75), bāhuśoṣa (24.79), apabāhuka (24.81), viśvācī (24.86), ūrdhavāta (24.90), ādhmāna (24.93), pratyādhmāna (24.105), vātāṣṭhīlā (24.107–108), pratyaṣṭhīlā (24.109), tūnī (24.112),

pratitūnī (24.113), vahnivaiṣamya, āṭopa, pārśvaśūla, trikaśūla (24.115), muhurmūtrana (24.122–128), mūtranigraha (24.122–128), malagāḍhatā, purīṣāpravṛtti, gṛdhrasī (24.129–132), kalāyakhañjatā (24.153), khañjatā (24.151), paṅgutā (24.151), kroṣṭuśīrṣa (24.155), khallī (24.158), vātakaṇṭaka (24.160), pādaharṣa (24.165), pādadāha (24.162), daṇḍakākṣepa, vātapittakṛtākṣepa (24.167–169: ākṣepa), daṇḍāpatānaka (24.170), abhighātakṛtākṣepa, āntarāyāma (24.181–183), bāhyāyāma (24.184–185), dhanurvāta (24.187: dhanuḥstambha), kubjaka (24.188), apatantra (24.191–192), apatāna (24.198–199), pakṣāghāta (24.204–205), akhilāṅgaka (24.213: sarvāṅgavāta), kampa, stambha, vyathā, toda, bheda, sphuraṇa,raukṣya, kārśya, kārṣṇya, śaitya, lomaharṣaṇa, aṅgamarda, aṅgavibhraṃśa, śirāsaṃkoca, aṅgaśoṣa, bhīrutva, moha, calacittatā, nidrānāśā, svedanāśa, balahāni, śukrakṣaya, rajonāśa, garbhanāśa, and paribhrama (24.4–16);[70] (19) the enumeration of forty pitta disorders (cikitsā 27);[71] (20) the enumeration of twenty kapha disorders (cikitsā 28);[72] (21) the employment of the term jaratpitta(śūla) as a synonym of pariṇāmaśūla (cikitsā 30.75, 83 and 89); (22) the earliest description of syphilis (phiraṅgaroga; cikitsā 59) and its treatment; this disease is said to be contracted through intercourse with strangers from the West (phiraṅga); an external, internal and combined type are distinguished; the lesion of the nose (nāsābhaṅga) is already known as a late symptom (upadrava); drugs recommended in the treatment of syphilis are rasakarpūra[73] and other mercurial preparations, copacīnī,[74] and ākārakarabha;[75] (23) the description of śītalā in the chapter on masūrikā (cikitsā 60.55–92);[76] seven types are distinguished: bṛhatī, kodravā, pāṇisahā, sarṣapikā, a type described as rājikākṛti,[77] another type of which the name if left unmentioned,[78] and carmajā;[79] the recitation of a hymn to the goddess Śītalā (60.70–82)[80] is said to cure the disease; (24) the description of thirty-four diseases of the nose (cikitsā 65.1–3);[81] (25) the description of some contraceptives (cikitsā 70.33–34);[82] (26) some formulae of pākas.[83]

Some of the surgical instruments mentioned are: avāṅmukha,[84] candracakra,[85] candrārdha,[86] eṣaṇī,[87] kharjūrapattraka,[88] sūcī,[89] sūcīmukha.[90]

Noteworthy among the medicinal plants and other substances found in the *Bhāvaprakāśanighaṇṭu* are:[91] alambuṣā (guḍūcyādi 274);[92] several types of āluka (śāka 94–95);[93] ālukī as a variety of raktālu (śāka 98);[94] āmragandhiharidrā (harītakyādi 198–199);[95] āmrāvarta, a substance prepared from mango juice (āmrādi 15–16); amṛtaphala (āmrādi 127);[96] araṇyahaladī (harītakyādi 200);[97] aśmantaka as a synonym of kāñcanāra (guḍūcyādi 101–102); the drugs forming the group called aṣṭavarga are elaborately described and their substitutes are also mentioned (harītakyādi 120–144); bhaṅgā (harītakyādi 233–234);[98] candraśūra (harītakyādi 96–97);[99] caturbīja, i.e., the seeds of methikā, candraśūra, kālājājī and yavānikā (harītakyādi 98–99); chāgāntrī as a synonym of vṛddhadāruka[100] (inserted between guḍūcyādi 210 and 211); chikkanī (guḍūcyādi 304);[101] ciciṇḍa (śāka 62);[102] cīnāka (dhānya 78);[103] cīnākakarpūra (karpūrādi 4);[104] coka, i.e., the root of *Argemone mexicana* Linn. (harītakyādi 176–177); damanaka (puṣpa 67–68);[105] two types of dantī: laghudantī[106] and dravantī[107] (guḍūcyādi 197–200); dārusitā (karpūrādi 66–67);[108] two types of devadālī: devadālī[109] and pītadevadālī[110] (guḍūcyādi 291–292); ḍiṇḍiśa (śāka 83–84);[111] ḍoḍikā (śāka 87–88);[112] dvīpāntaravacā (harītakyādi 107–108);[113]

gandhakokilā (karpūrādi 117);[114] gandhamālatī (karpūrādi 117);[115] two types of hapuṣā (harītakyādi 109–110);[116] haricandana (karpūrādi 14–15);[117] two types of indravāruṇī: indravāruṇī and mahāphalā indravāruṇī (guḍūcyādi 203–206);[118] two types of jātī: jātī[119] and svarnajātikā[120] (puṣpa 27–28); several varieties of kadalī (āmrādi 35);[121] kalambī (śāka 19);[122] kaṅkuṣṭha (dhātvādi 163–164);[123] three types of karañja (guḍūcyādi 119–124): karañja, pūtikarañja and karañjī;[124] three types of kastūrī: kāmarūpodbhavā, naipālī and kāśmīrī (karpūrādi 5–8); three types of kharjūrikā: bhūmi-[125] and piṇḍakharjūrikā,[126] as well as chohārā; sulemānī is a variety of piṇḍakharjūrikā (āmrādi 115–122); ahiphenaka (harītakyādi 235–240);[127] kiṅkirāta (puṣpa 44–45);[128] kukundara (guḍūcyādi 305–306);[129] three types of kuṅkuma: kāśmīradeśaja, bāhlīkadeśasaṃjāta and pārasīka (karpūrādi 74–78);[130] kūṭaśālmali (vaṭādi 58–59);[131] loṇī[132] and bṛhalloṇī[133] (śāka 20–22); various kinds of lotuses and water-lilies (puṣpa 1–18); mācikā (harītakyādi 167–168);[134] makhānna (āmrādi 91);[135] mārkaṇḍikā (guḍūcyādi 289–290);[136] matsyākṣī (guḍūcyādi 266);[137] two types of mūlaka: laghu- and nepālamūlaka (śāka 99–103);[138] nāgadamanī (guḍūcyādi 299–301: = balāmoṭā);[139] nāgapuṣpī (guḍūcyādi 252);[140] pānīyataṇḍulīya (śāka 14: = kañcaṭa);[141] pārasīkavacā (harītakyādi 104);[142] pārasīkayavānī (harītakyādi 80);[143] parpaṭī (karpūrādi 127–128);[144] puṣkaramūla (harītakyādi 174–175)[145] is regarded as a variety of kuṣṭha; sarpākṣī (guḍūcyādi 267–268);[146] two types of śatāvarī: śatāvarī-[147] and mahāśatāvarī[148] (guḍūcyādi 184–188); sinduvāra and nirguṇḍī are described as two related plants with white, respectively blue flowers (guḍūcyādi 113–114); śirīṣikā (vaṭādi 71);[149] two types of sugandhā: ugragandhā (= kuliñjana)[150] and sthūlagranthi[151] (harītakyādi 105–106); svarṇavallī (guḍūcyādi 149);[152] śvetakhadira (vaṭādi 33);[153] śyonāka and kaṭvaṅga as synonyms (guḍūcyādi 25–26);[154] two types of tagara: tagara and piṇḍatagara[155] (karpūrādi 28–29); tuvarī (dhānya 68: different from āḍhakī);[156] vanyā methikā (harītakyādi 95);[157] vārṣikī (puṣpa 25–26);[158] two types of vāstuka: vāstuka[159] and gauḍavāstuka[160] (śāka 5–7); two types of yūthikā: yūthikā[161] and pītayūthikā[162] (puṣpa 29–30).[163]

Some drugs, prescribed in the chapters on therapy, are absent from the *Bhāvaprakāśanighaṇṭu*, e.g., ākārakarabha (cikitsā 72.76),[164] bhavaliṅgī (70.31)[165] and īśaliṅgī (70.32),[166] mājūphala (72.39), pārśvapippala (70.29),[167] rasālakāṇḍa (24.313),[168] and vajrāṇḍī(41.59).[169]

Some dishes described in the Nighaṇṭu are:[170] balabhadrikā (kṛtānna 36), beḍhamikā (41–43), dhūmasī (37), dugdhakūpikā (132–136), harīsā (90–93), jāli (160–161), jharjharī (38), karpūranālikā (117–118), kuṇḍalinī (137–142), kvathitā (69), roṭikā (30–32),[171] sampāva (112–116),[172] sevikā (19–20), tāpaharī (11–14), ūcī (179), and vesana (78).[173]

The Nighaṇṭu describes a large number of fishes in its māṃsavarga:[174] atisūkṣmamatsya (124),[175] bhakura (107),[176] daṇḍamatsya (116), eraṅga (117),[177] garaghnī (119), gargara (113), illīsa (111),[178] kavikā (114), kṣudramatsya (123),[179] madgura (120), mahāśaphara (118),[180] mocikā (108), pāṭhīna (109), proṣṭhī (122),[181] rohita (104–105), sapādamatsya (121),[182] śaṣkulī (112), śilīndhra (106),[183] śṛṅgin (110), and varmimatsya (115).

The headings of the descriptions of plants, etc., contain numerous vernacular names

and, occasionally, references to the region where these names are used.[184]

The dhātvādivarga describes seven dhātus: suvarṇa (gold), rūpya (silver), tāmra (copper), raṅga (= vaṅga: tin), yaśada (zinc), sīsa (lead), and loha (iron) (1–52), and seven upadhātus: svarṇamākṣika, tāramākṣika, tuttha, kāṃsya, rīti (= pittala), sindūra, and śilājatu (53–85). Mercury (rasa) is described and some saṃskāras are referred to (86–100). The uparasas are: gandha, hiṅgula, abhra, tālaka, śilā, sroto'ñjana, ṭaṅkaṇa, rājāvartaka, cumbaka, sphaṭikā, śaṅkha, khaṭī, gairika, kāsīsa, rasaka, kaparda, sikatā, bola, kaṅkuṣṭha, and saurāṣṭrī (101–164); the nine ratnas (gems) are: ratna (diamond), gārutmata (emerald), puṣparāga (topaz), māṇikya (ruby), indranīla (sapphire), gomeda (onyx), vaiḍūrya (cat's eye), mauktika (pearl), and vidruma (coral) (165–188); the uparatnas are only partially enumerated (189–190); the nine poisonous substances (viṣa) are: vatsanābha, hāridra, saktuka, pradīpana, saurāṣṭrika, śṛṅgika, kālakūṭa, hālāhala, and brahmaputra (191–205); seven upaviṣas are enumerated: arkakṣīra, snuhīkṣīra, lāṅgalī, karavīraka, guñjā, ahiphena, and dhattūra (206).

The Guṇaratnamālā

(2) The *Guṇaratnamālā*[185] is a work on dietetics and materia medica in twenty-six chapters (varga).[186] Many of its verses are identical with or similar to verses found in the *Bhāvaprakāśanighaṇṭu*, but it is more elaborate and contains additional information.[187] It is quoted in Bhāvamiśra's own glosses on the *Bhāvaprakāśa*,[188] probably in Śivadatta's commentary on his *Śivakoṣa*,[189] and in Ṭoḍara's *Āyurvedasaukhya*.[190]

The author

Bhāvamiśra,[191] son of Miśralaṭakana,[192] was a brāhmaṇa[193] who resided in Northern India.[194] It is said that the *Bhāvaprakāśa* had great authority in Mahārāṣṭra.[195] Some scholars are of the opinion that Bhāvamiśra may have been one of those who compiled Ṭoḍaramalla's *Āyurvedasaukhya*.[196]

Date

The chronological position of the *Bhāvaprakāśa* depends primarily on the introduction into India of syphilis (phiraṅgaroga) and of sarsaparilla (copacīnī),[197] one of the main drugs used in its treatment. It is usually claimed that the Portuguese imported the disease,[198] and that sarsaparilla was made known to them at Goa by Chinese traders about 1535.[199] The *Bhāvaprakāśa* must therefore have been composed after that date. The lower limit depends on the reliability of the date of completion, 1558/59, of one of the MSS.[200] Several arguments can be adduced to assign Bhāvamiśra roughly to the period 1550–1590: Ṭoḍaramalla's *Āyurvedasaukhya*, compiled between 1572 and 1589 probably quotes Bhāvamiśra's *Guṇaratnamālā*; Śivamiśra quotes the *Bhāvaprakāśa* in his *Vaidyaśāstraśivānubhava*, written in 1604/05, as well as Bhānuji Dīkṣita in his commentary on the *Amarakoṣa*,[201] dating from the first half of the seventeenth century;[202] Harṣakīrti (1535–1610) may have been influenced by Bhāvamiśra in some of his prescriptions,[203] as well as Lolimbarāja (last quarter of the sixteenth century.[204]

Dalapati(rāja)

Dalapati, or Dalapatirāja, son of Vallabha and pupil of Sūryapaṇḍita, wrote his *Vaidyadarpaṇa* at the end of the fifteenth or the beginning of the sixteenth century.[205]

Dāmodara, alias Jñānadeva

Dāmodara, alias Jñānadeva, was the author of (1) *Vyādhyargala*, and (2) a commentary on Lolimbarāja's *Vaidyajīvana*.[206] This Dāmodara belongs to the end of the sixteenth or the beginning of the seventeenth century, since a MS of his commentary on the *Vaidyajīvana* dates from 1612/13.

Deveśvara or Deveśvaropādhyāya

Deveśvara, or Deveśvaropādhyāya, son of Murāri, wrote a monograph on women's diseases, called *Strīvilāsa*. The author was a śrīgauḍa brāhmaṇa who probably lived in Gujarāt, since Gujarātī words are met with in his treatise. The work dates from the sixteenth or seventeenth century.[207] It is quoted in the *Rasayogasāgara*.[208]

Gopāla Vaidya

Gopāla Vaidya, son of Mahādeva, composed the *Anubhavasāra* in the sixteenth century.[209]

Haṃsarāja or Haṃsanātha

Haṃsarāja or Haṃsanātha[210] was the author of (1) the *Bhiṣakcakracittotsava*,[211] also called *Haṃsarājanidāna*,[212] and (2) the *(Sarva)jvarasamuccayadarpaṇa*.[213]

Contents

The *Bhiṣakcakracittotsava* is a treatise on nidāna in about 800 skillful verses of various metres, composed by the author himself. It describes the origins (nidāna) and symptoms (rūpa or lakṣaṇa) of all the diseases recognized by the author, sometimes adding the prodromes (pūrvarūpa),[214] things beneficial (pathya)[215] or harmful (apathya),[216] complications (upadrava),[217] and signs foreboding death (ariṣṭa).[218] The pathogenesis (saṃprāpti) of the diseases is not included in Haṃsarāja's work.

Some verses on the examination of the pulse and on the causes of the excitement of the doṣas are mentioned at the beginning of the treatise; it ends with verses on the examination of the urine, the tailabindu method included, and on the types of napuṃsaka (impotence and sexual perversities).

Deities invoked and authorities referred to in the introductory verses (1–8) are: the Aśvins,[219] Ātreya, Atri(ka),[220] Bharadvāja, Brahmā, Bṛhaspati, Caraka,[221] Dāmodara, Dhanvantari,[222] Gautama, Hārīta(ka), Mādhava, Nakula, Parāśara, Sarasvatī, Śiva, Śukra, Suṣeṇa,[223] Suśruta, Vāgbhaṭa, and Viṣṇu.

The *Bhiṣakcakracittotsava* is quoted in Vācaka Dīpacandra's *Laṅghanapathyanirṇaya*, the *Haṃsarājanidāna* in the *Ārogyāmṛtabindu*.

The *Haṃsarājanidāna* has remained a popular work up to the present day,[224] especially among Jain physicians.[225]

Special features

The arrangement of the diseases adopted by Haṃsarāja agrees in most respects with that of the *Mādhavanidāna*. At variance with Mādhava's order are the chapter on bhagandara, placed between those dealing with arśas and ajīrṇa, and the description of masūrikā as a variety of pramehapiṭikā, without devoting a special chapter to it as a nosological entity. Haṃsarāja's treatise has no chapters on śotha, vṛddhi, vraṇaśotha, śārīravraṇa, sadyovraṇa, bhagna, nāḍīvraṇa, visphoṭa, and masūrikā. Other disorders omitted are uraḥkṣata (in the chapter on rājayakṣman), bhrama, nidrā, and saṃnyāsa (in the chapter on mūrchā), paramada (in the chapter on pānātyaya), pariṇāmaśūla and annadravaśūla (in the chapter on śūla), galagaṇḍa, apacī, granthi, and arbuda (in the chapter on gaṇḍamālā), and mūḍhagarbha (in the chapters on women's diseases).

In general, the *Bhiṣakcakracittotsava* is much more dominated by the tridoṣa doctrine than the *Mādhavanidāna*. When compared with the latter, it shows many divergences. The chapter on fevers describes a large number of these which cannot be found in Mādhava's *Rugviniścaya*: one series of thirteen saṃnipāta fevers: saṃdhika, antaka, cittabhrama, rugdāhaka, śītāṅga, tandrika, kaṇṭhakubja, karṇaka, bhugnanetra, raktaṣṭhīvin, pralāpin, jihvaka, and abhinyāsaka[226] (8–12); moreover, ajīrṇajvara (12), raktajvara (12), dṛṣṭijvara (13), viḍjvara (13), khedajvara (13), dhātukṣayajvara (15), mahendrajvara (16), velājvara (16), ekāṅgajvara (17), and a second type of antakajvara (17). The following names are given to the mythical shapes of fever: bībhatsa-, triśiro-, kapila-, bhasmavikṣepaka-, tripāda-, piṅgākṣa-, mahodara-, and jvaladvigrahajvara (24–26). The chapter on arśas has no raktaja and sahaja types. The varieties of bhagandara differ from those in the *Mādhavanidāna*; a vāta, pitta, and saṃnipāta type are described. The chapter on ajīrṇa deals with three types only, by vāta, pitta and kapha, while the *Mādhavanidāna* has six types. The chapter on pāṇḍuroga refers to the variety brought about by the ingestion of clay (mṛd), without describing its symptoms, and adds a type caused by betel nuts (pūgīphala). The chapter on kāmalā, kumbhakāmalā and halīmaka adds the symptoms of the disorder called pānakī.[227] The types of śoṣa caused by sexual excesses, etc., are omitted in the chapter on rājayakṣman. The chapter on kāsa has only doṣaja types; the kṣataja and kṣayaja types of Mādhava are absent. The chapter on hikkā adds varieties occurring in children and in the elderly. The chapter on śvāsa enumerates the symptoms of svābhāvika-, ati- and mahāśvāsa instead of those of the five types of Mādhava. Haṃsarāja distinguishes three doṣaja types of svarabheda and omits the other ones described by Mādhava. The same applies to aruci. The āgantuja and krimija types of chardi are absent. The eight varieties of tṛṣṇā differ in some respects from those described in the *Mādhavanidāna*; the āmaja and upasargaja types of Mādhava are replaced by those arising from fear (bhaya) and fatigue (śrama). The chapter on mūrchā and allied conditions describes klama instead of tandrā. The variety of unmāda caused by viṣa is absent.

The specific types of vātavyādhi of the *Mādhavanidāna*, beginning with pakṣavadha, are not separately dealt with; some of these disorders are referred to, for example khāñjya (68 and 70), gṛdhrasī (69), daṇḍaka (72 and 74), and pakṣaghāta (73). The chapter on mūtrāghāta describes only doṣaja types, not the specific types of Mādhava. The chapter on prameha mentions successively the types caused by vāta, pitta and kapha, whereas the usual order is the reverse one; the varieties distinguished disagree with those of the *Mādhavanidāna*. Two chapters are devoted to pramehapiṭikā; the first one describes doṣaja types, the second one the series of ten varieties known from the classical saṃhitās and also found in the *Mādhavanidāna*; two of the names are different: vinatā and alajī are replaced by piṇḍikā and vitatāñjalī. Three doṣaja types of gaṇḍamālā are distinguished by Haṃsarāja, as opposed to the single type of Mādhava. The āgantuja type of vidradhi is omitted, as well as the raktaja type of upadaṃśa. The eighteen varieties of śūkadoṣa are referred to, but not systematically described; separately described are only sarṣapikā, kumbhī, saṃmūḍhapiṭikā, dīrghikā,[228] and puṣkarikā; the other varieties appear to be included among the doṣaja types mentioned by Haṃsarāja. The eighteen types of kuṣṭha are referred to; eleven of these are separately described: viṣama, audumbara, mūkajihva,[229] maṇḍala, karavāla,[230] kiṇi,[231] dadru, carmadala, carmakuṣṭha, pāmā, and citrakuṣṭha; the remaining ones are regarded as doṣaja.

Three doṣaja types of amlapitta are distinguished, as opposed to Mādhava's adhoga and ūrdhvaga varieties. The kṣudrarogas are arranged in almost the same order as in the *Mādhavanidāna*, but their number has been reduced: cippa, kunakha, anuśayī, arūṃṣikā, padminīkaṇṭaka, jatumaṇi, and ahipūtana are absent; antrālajī is called añjalī, indraviddhā indravṛddhi, agnirohiṇī jvālāmukhīrohiṇī; parivartikā is replaced by karṇikā. The four types of oṣṭharoga which are not primarily doṣaja are omitted in the chapter on mukharoga; diseases of the gums left out by Haṃsarāja are upakuśa, khalivardhana and the five varieties of dantamūlanāḍī; paridara is replaced by asṛkpariṣara, and a disease called śophakaśa has been added; the disease of the teeth called kapālikā is absent, as well as the disease of the palate called adhruṣa; the same applies to tālvarbuda and tālupupputa; the diseases of the throat called valaya, ekavṛnda, vṛnda, svaraghna, māṃsatāna, and vidārī are absent. Diseases of the ear absent are karṇaśotha, karṇārbuda and karṇārśas, as well as the five diseases of the earlobes. Many diseases of the eyes are not described; added are, on the other hand, pūyala,[232] parivāra, and brāhmaṇī. Absent among the diseases of the head are kṣayajaśiroroga, anantavāta, ardhāvabhedaka, and śaṅkhaka. The chapter on strīroga describes pradara, yonikanda and the twelve yonirogas. The chapter on bālaroga includes the disorders of the breastmilk; among the children's diseases paribhava and mahāpadma are absent; bālagrahas mentioned are Skanda, Śakunī, Revatī, Pūtanā, Maṇḍitā, and Naigameya. The last chapter defines the following types of napuṃsaka: āsekya, saugandhika, kumbhika, īrṣyaka, and the male and female variety of ṣaṇḍha.[233]

A salient feature of Haṃsarāja's work is the absence of diseases like bradhna, snāyuka, somaroga and phiraṅga, added to āyurvedic nosography after Mādhava's age.

The author
His name is Haṃsarāja in the last verse of the chapter on mūtraparīkṣā and in the colophons of the edition; he is sometimes called Haṃsanātha.[234] No particulars about him are known.

Date
The terminus post quem of Haṃsarāja's date is provided by a reference to Cāmuṇḍa's *Jvaratimirabhāskara*, composed in 1490 or 1492, in a MS of the *Sarvajvarasamuccayadarpaṇa*.[235] Dāmodara, referred to in the *Bhiṣakcakracittotsava*, may be the author of the *Ārogyacintāmaṇi*, who lived in the first half of the fourteenth century, or, less probably, the one who composed the *Bhīmavinoda*, a work to be placed after the period of Bhāvamiśra. Other persons called Dāmodara, for example the father of the author of the *Śārṅgadharasaṃhitā*,[236] need not be taken into account. It is improbable that Haṃsarāja is later than Bhāvamiśra, phiraṅgaroga not being mentioned in the former's work, and the worship of Śītalā in cases of smallpox being referred to in passing only, without describing the disease called after this goddess.[237] The *Bhiṣakcakracittotsava* can therefore be assigned to the sixteenth century. The earliest author known to quote it is Vācaka Dīpacandra in his *Laṅghanapathyanirṇaya*, composed in 1735/36.

P.V. Sharma[238] places Haṃsarāja in the seventeenth century, basing himself on the reference to Dāmodara, and supposing this Dāmodara to be the author of the *Bhīmavinoda* and of a commentary on Suṣeṇa's *Āyurvedamahodadhi*, called *Ārogyacintāmaṇi*. The coupling of Dāmodara and Suṣeṇa, of some importance to P.V. Sharma's reasoning, is, however, unfounded, since the *Ārogyacintāmaṇi* is not a commentary, but an independent treatise, having nothing to do with Suṣeṇa, and composed by a Dāmodara who, as stated above, lived in the first half of the fourteenth century. The *Bhīmavinoda* appears to be much later than Haṃsarāja's work since it mentions phiraṅgaroga, unknown to the latter. P.V. Sharma has overlooked the reference to the *Jvaratimirabhāskara* in Haṃsarāja's *Sarvajvarasamuccayadarpaṇa*.

Harṣakīrti

Harṣakīrti was the author of the *Yogacintāmaṇi*.[239] Besides this work on medicine he wrote one synonymic and two homonymic dictionaries,[240] as well as independent treatises on diverse subjects and a number of commentaries.[241]

The *Yogacintāmaṇi*[242] is chiefly a collection of recipes, consisting of about 1,700 verses with an admixture of prose, arranged in seven chapters (adhikāra). Its most conspicuous characteristic is the arrangement of the recipes according to the type of pharmaceutical preparation. Their order, pāka, cūrṇa, guṭikā, kvātha, ghṛta, and taila, differs from that in works which are similarly conceived, such as Candraṭa's *Yogaratnasamuccaya*, the *Śārṅgadharasaṃhitā* and the prayogakhaṇḍa of Soḍhala's *Gadanigraha*. No system can be detected in the series of diseases against which the formulae are to be employed, but the author's acquaintance with the *Mādhavanidāna* is apparent from a list of diseases at the end of the work in the section on karmavipāka.

Contents.[243]
Chapter one (pākādhikāra; 329 verses) describes aṣṭasthānaparīkṣā,[244] i.e., the examination of the pulse (nāḍī),[245] urine (mūtra),[246] eyes (netra),[247] face (mukha),[248] tongue (jihvā),[249] faeces (mala), voice (svara), and skin (sparśa) of a patient. This section is followed by verses on ariṣṭas, weights and measures,[250] and anatomy.[251] After giving rules for the preparation of a pāka,[252] the treatise continues with a long series of recipes of pākas. Chapter two (157 verses) is devoted to cūrṇas, chapter three (180 verses) contains formulae of guṭikās, chapter four (149 verses) describes kvāthas, chapter five (83 verses) ghṛtas, and chapter six (117 verses) tailas. Chapter seven (miśrādhikāra) is, in accordance with its title, a composite one. It begins with a table of its contents (7 verses) and deals with preparations called guggulu after its chief ingredient (gugguluprakaraṇa; 52 verses), śankhadrāva (7 verses), the śodhana and māraṇa of rasas, etc., and the preparation of mercury for internal use (163 verses), formulae of rasas (rasaprakaraṇa; 93 verses), āsavas (49 verses), lepas (lepaprakaraṇa; 98 verses), bloodletting, nasya, virecana, vamana, sveda, bandhana (bandaging), bāṣpa (vapour-bath), cūrṇamardana (covering the body with a powdered drug), the application of a medicated roṭaka to the head, piṇḍikā or kavalī (a kind of poultice), gaṇḍūṣa, dhūpa, the excellent qualities of takra (diluted buttermilk), various formulae, the symptoms and treatment of madhūraka,[253] various formulae of general application (sādhāraṇayogas), various types of general treatment (sāmānyakāyacikitsā), dambha (cauterization), formulae promoting fertility in women, contraceptive measures and abortifacients (166 verses). The treatise ends with a section on karmavipāka (27 verses) in the form of a dialogue between Sūrya and Aruṇa which includes a list of diseases that closely agrees with the *Mādhavanidāna*.

The authorities consulted by Harṣakīrti are enumerated in one of the concluding verses: Ātreyaka, Caraka, Vāgbhaṭa, Suśruta, the Aśvins, Hārīta, Vṛnda, the (*Cikitsā-*)*kalikā*, Bhṛgu,[254] Bheḍa, the (*Mādhava*)*nidāna*, and *Karmavipāka*. He also refers to a *Yogapradīpa* and the *Yogaśata* in the last verse of his treatise. A cursory examination of the *Yogacintāmaṇi* shows that the *Śārṅgadharasaṃhitā*, although left unmentioned, may have been an important source of Harṣakīrti.[255]

Quotations from Harṣakīrti's *Yogacintāmaṇi* are found in Yādavajī Trikamajī Ācārya's *Siddhayogasaṃgraha*. (Harṣakīrti's) *Yogacintāmaṇi* was one of the sources of Devasiṃha Viṭṭhal's *Bṛhadāsavāriṣṭasaṃgraha*, Hariprapanna's *Rasayogasāgara*, and Pratāpasiṃha's Amṛtasāgara.

A *Yogacintāmaṇi* is quoted in the *Āyurvedīya Khanijavijñāna*, *Bheṣajasaṃhitā*, Meghamuni's *Meghavinoda*,[256] Nidhi's *Yogasamuccaya*, Nirañjanaprasāda Gupta's *Pāradasaṃhitā*, the *Pākamārtaṇḍa*, Rāmacandra's *Rāmavinoda*,[257] the *Rasendrasambhava*, and the *Yogaratnākara*.[258] A *Yogacintāmaṇi* was one of the sources of Kalyāṇa's *Bālatantra* according to Dīpacandra.[259]

A commentary on the *Yogacintāmaṇi* has been written by Narasiṃha, a Jain monk of the Kharataragaccha[260] and a pupil of Ratnarājagaṇi.[261] A *Yogacintāmaṇiṭippaṇa* by Bhavānī Sahāya[262] may be a commentary on Harṣakīrti's work.

Special features

Important in the field of diagnostics is Harṣakīrti's description of aṣṭasthānaparīkṣā (3–14), probably the earliest of its kind.[263] Nosologically interesting: are the description of madhūraka (317), the earliest mention of this fever in a Sanskrit medical text; the use of the term nāsūra (296)[264] for a kind of ulcer; a disorder called candrikā (295) or candanā (296);[265] the occurrence of mṛgavāta (156) and mṛgīvāta (148 and 326) as synonyms of apasmāra; kamalavāta (169) as a synonym of kāmalā; the mention of nīradoṣa (87) or vāriroga (236), mṛdbhakṣaṇavikāras (236), lūtā (189), urograha (215), and pāradavikāra (243); occasional references to specific types of saṃnipāta fever (148: abhinyāsa and antaka; 147: cittabhrama; 148: cittavibhrama; 147, 148, and 167: pralāpa; 167: hāridraka); a reference to different views on the number of fevers to be distinguished (339) and to the dissenting view that the vāta diseases are not eighty but eighty-four in number (329); the absence of prescriptions against phiraṅgaroga, śītalā, snāyukaroga and vardhma.

Important in the field of pharmaceutics is the separate chapter on pākas, the earliest one in Sanskrit medical literature.

Therapeutically interesting is the use of a mantra, in which a magadhadeśarāya is invoked, in the treatment of madhūraka (318). Among the points suitable for cauterization the brahmasthāna (148) or daśamadvāra (148 and 167) is mentioned, which may betray Tantric influence. A striking feature is also the frequent prescription of ākallaka (and its synonyms),[266] mājū(phala)[267] (31, 60, 69, 103, 277, 287, 296), mastakī (48, 77, 271) or mastagī (103, 137),[268] opium,[269] Cannabis,[270] and mercury. Honey, a substance forbidden to Jains as an article of diet, is a frequent ingredient of Harṣakīrti's prescriptions.

Noteworthy substances from Harṣakīrti's materia medica, which contains colloquial names and substances of foreign origin, are moreover: cīnīkabābī (46; 265),[271] cobacīnī (323),[272] hemambhodhara (31),[273] hiramajā (297), jāvitrī (44),[274] jhinjhiṇī (60),[275] kabābī (60),[276] kāloṃjī (311),[277] kasela (68),[278] kauñca (43),[279] khairīragunda (60),[280] khurasāṇa (311),[281] khurasāṇikā (31), kucīla (156),[282] muradāśṛṅga (295),[283] phaṭikā (60), rasakarpūra (246),[284] saṇa (136),[285] sātharī (60),[286] siṇāvāsika (34),[287] and śvetāhā (180).[288]

The author

Harṣakīrti[289] was a Jain monk[290] of the Tapāgaccha[291] and a resident of Nāgpur.[292] His teacher was Candrakīrti[293] and his patron Pravarasiṃha.[294] The vācaka Vidyātilaka of the Upakeśagaccha may have been one of his collaborators.[295]

Date

Harṣakīrti's career has been reconstructed by C. Vogel.[296] He was active as a scribe as early as 1556/57, had risen to the rank of upādhyāya by 1578/79,[297] bore the title of Sūri since 1582 and had passed away in 1616.[298] His floruit may thus be fixed tentatively as 1535–1616. These dates agree with internal evidence from the *Yogacintāmaṇi*: the prescription of cobacīnī and rasakarpūra indicate that he is of about the same period as Bhāvamiśra. The oldest MSS of the *Yogacintāmaṇi* were completed in 1666, respectively 1668.[299]

Kalyāṇa

Kalyāṇa[300] was the author of the *Bālatantra*.[301]

Contents

The *Bālatantra* is a treatise in 831 verses,[302] arranged in fourteen chapters (paṭala). It opens with a maṅgalācaraṇa addressed to Gaṇeśa and a verse giving the name of the author, the title of the work and some of its sources.

Chapter one (ṣoḍaśavandhyāpratīkāra) deals with two series of eight disorders of fertility in women and their treatment. The first series consists of four types of infertility caused by the doṣas (pitta, vāta, kapha, saṃnipāta),[303] two by grahas,[304] one type by the wrath of the gods, and one by magic.[305] The second series describes eight types of infertile women, called tripakṣā, subhratī, sadbhā, trimukhī, vyāghriṇī, vakrī, kamalinī, and vyaktinī.

Chapter two (sādhāraṇavandhyauṣadhakathana) is about the treatment of various unspecified types of infertility. Chapter three (puruṣavīryavṛddhikathana) contains recipes which promote male potency, recipes appeasing various disorders in men and women which prevent procreation, recipes of a vājīkaraṇa type, etc. Chapter four (garbhādhānakālarudrasnānakathana) describes rituals, including mantras, for begetting healthy offspring of the desired sex, a ritual to be performed in digging up the lakṣmaṇā plant, which, if put in the right nostril of a woman, guarantees her giving birth to a son,[306] and elaborate rules for the rudrasnāna, i.e., a Tantric ritual,[307] which ensures a childless couple of the birth of children. Chapter five (garbhiṇīgarbharakṣākathana) is concerned with mantras and offerings to twelve gods and groups of deities[308] protecting the expectant mother and the child in the womb during the twelve months of pregnancy. Chapter six (sukhaprasavopāyakathana) is devoted to procedures, for the greater part of a magical character, which secure an easy delivery.

Chapters seven to eleven describe grahas[309] who attack children, the symptoms they produce, and the ways to ward them off.[310] Chapter seven (dinagṛhītabālagrahahara) describes ten grahas[311] who may assault a child during the first ten days of its life,[312] chapter eight (māsagṛhītabālagrahahara) twelve who do so during the twelve months of its first year,[313] and chapter nine (varṣagṛhītabālagrahahara) sixteen grahas who prey upon a child during the first sixteen years of its life.[314] Chapter ten (dinamāsavarṣabālagrahopāyakathana) gives the names of sixteen more grahas,[315] whose attack can be expected during the first day, month or year, second day, month or year, etc.,[316] and chapter eleven (sādhāraṇa) mentions common measures against all types of grahas, besides adding nine names of grahas[317] whose attacks are seen as a punishment for offences committed during a previous life. The measures described in order to ward off attacks by grahas usually consist of offerings (bali) of a specified number of various objects[318] to be deposited in a particular quarter of the sky,

accompanied by the muttering of mantras.

The subjects of chapter twelve (jvaraharaṇopāyakathana) are: recipes which promote lactation in nursing mothers, the wet-nurse, measures which purify the milk, the treatment of some disorders especially occurring in infants (inflammation of navel, anal region, and mouth), and the therapy of fevers in children. Chapter thirteen (śītalācikitsākathana) is about the treatment of a long series of children's diseases ending with śītalā.[319] Chapter fourteen (nānāprayogakathana) deals with diseases of eyes, nose, head, and mouth, and ends with verses about antidotes and rasāyana. The order of the diseases mentioned in chapters thirteen and fourteen partially agrees with the *Mādhavanidāna* but makes a rather chaotic impression.

Sources mentioned by Kalyāṇa are: Dhanvantari (13.39–41), the *Prayogasāra* (1. 2), [320] and Suśruta (1.2).

A commentary in Hindī (mixed with Rājasthānī) on the *Bālatantra* was written by Vācaka Dīpacandra, author of the *Laṅghanapathyanirṇaya* (eighteenth century); its title is *Bālatantrabhāṣāvacanikā* or *Bālatantragranthavacanikābandha*.[321] Dīpacandra mentions the following authors and works as sources of Kalyāṇadāsa: Ātreya, *Bhāvaprakāśa*, Bheḍa, Caraka, Hārīta, *Saṃnipātakalikā*, Suśruta, Ṭoḍarānanda, Vāgbhaṭa, *Vaidyakasāroddhāra*, *Vaidyavinoda*, Vaṅgasena, *Yogacintāmaṇi*, *Yogaratnāvalī*, and *Yogaśata*.[322]

Special features

Kalyāṇa's work shows a great deal of Tantric influence in its descriptions of rituals and in the use of mantras.[323] Magical elements abound in the therapeutic measures described,[324] which explains the frequent use of substances like excrements, hairs, nails, horns, etc., of various animals. The more remarkable is the almost complete absence of substances and formulae derived from iatrochemistry. Kalyāṇa's materia medica consists for a very large part of medicinal plants and some minerals known from the classical āyurvedic texts. Moreover, his recipes are usually relatively simple.

Mercury is prescribed once only (3.2), opium twice (3. 56 and 59), and the seed capsule of the opium-poppy (khasaphala) once only (3.54), while Cannabis is completely absent.

Some remarkable names of plants are: kṣuraka (3.45),[325] putramañjārikā (2.22–23), ratnamālā (1.46), rudrajaṭā (12.89),[326] śivaliṅgī (2.22),[327] and tejanī (12.87).[328]

Noteworthy in the field of nosology are the second series of types of infertile women in chapter one[329] and the occurrence of a disease called ksudraśītalikā (13.90).

The author

At the end of his treatise (14.27–29), Kalyāṇa claims to be a son of Mahīdhara, a devotee of Lakṣmīnṛsiṃha, and a grandson of Rāmadāsa, a paṇḍita of Ahicchattra[330] lineage and a devotee of Rāmacandra. Kalyāṇa's father, Mahīdhara, is generally considered to be the author of that name who, together with his son Kalyāṇa and other learned brāhmaṇas, composed the *Mantramahodadhi*.[331] Mahīdhara, however, mentions in his genealogy that he was a son of Phanūbhaṭṭa,[332] a devotee of Rāma, and a grandson of Ratnākara, an Ahicchattra brāhmaṇa of Vatsagotra. He adds that he is devoted to

Narahari,[333] that he left his birthplace and moved to Vārāṇasī.[334] If Rāmadāsa[335] were a second name of Phannabhaṭṭa, who was a devotee of Rāma, the chief author of the *Mantramahodadhi* was indeed the father of the author of the *Bālatantra*.[336]

Date

Kalyāṇa mentions that he completed his treatise in a Śiva temple in the year 1587/88.[337]

Kavikaṇṭhahāra

Kavikaṇṭhahāra,[338] son of Vaidya Trilocana Kavicandra,[339] wrote the *Prayogaratnākara*.[340] The author was patronized by prince Rāmacandra and lived in the sixteenth or seventeenth century.[341]

The work begins with the description of the processing of rasas and uparasas, followed by a section on the medicinal uses of animal and vegetable products, but it is chiefly concerned with therapy. The arrangement of the diseases agrees with that of Mādhava.

Sources quoted are Bhīmaparākrama, Garga, Maheśvara, Pradyumna, *Rasaratnadīpa*, and Suśruta. The author puts himself sometimes in opposition to the Southern school (dākṣiṇātyāḥ) and also mentions a Western school (pāścātyāḥ).[342] The *Prayogaratnākara* is frequently quoted in the *Saṃdehabhañjanī*, a compilation on the preparation of medicines, printed at Berhampore in 1868.[343]

Kṣemaśarman

The *Kṣemakutūhala* by Kṣemaśarman[344,345] is a book on cookery and dietetics for use at the royal court.

Contents

The treatise consists of about 1,100 verses arranged in twelve chapters (utsava). Chapter one (vaṃśavarṇana) describes, after two introductory verses, the genealogy of the author (3–18), the composition of the book and its merits (19–22), its contents (23–35), technical terms employed in preparing food (36–50), weights and measures (50–51), rules for the ratio between water and the other ingredients in various dishes (52–58), and rules for the preparation of a rasālā and a pāna (59–60). Chapter two (mahānasopayogyopakaraṇapraśaṃsana) deals with the royal kitchen, its lay-out and its utensils (8–25), and with protection of the king from poison (25–39). Chapter three (vaidyāhārasūpakārapraśaṃsana) describes the qualities of a good physician and cook, and gives general rules to be observed when taking food (1–52). Chapter four (ṛtulakṣaṇacaryāpraśaṃsana) gives the behavioural rules during the various seasons (1–38), and chapter five (dinacaryāpraśaṃsana) those to be observed during the parts of day and night (1–94). Chapter six (māṃsapraśaṃsana) is about meat dishes (1–214) and chapter seven (matsyamāṃsapraśaṃsana) about fish courses (1–36). Chapter eight (ṣaḍvidhaśākapraśaṃsana) deals with the six types of vegetables and their medicinal qualities (1–207), while chapter nine (piṣṭānnakṛtprakārapraśaṃsana)

is about fermented dishes (saṃdhānaka; 1–11) and various kinds of vaṭaka (12–56). Chapter ten (pakvānnapraśaṃsana) deals with a long series of dishes (1–144), and chapter eleven (kṣudbodhavastupraśaṃsana) with appetizers (1–29). Chapter twelve (gorasapānakādipraśaṃsana) describes the qualities of milk and other dairy produce, as well as drinks (pānaka), to which are added behavioural rules to be observed after finishing a meal (1–121), verses on the author's genealogy (122–124), and some concluding verses (125–127).

The author mentions (1.21) that he wrote his work after consulting the *Gaurīmata*, Caraka, Vāgbhaṭa, *Bhīmasūkti*, Hārīta, Suśruta, and *Ravisiddhapāka*. Authorities referred to in the body of the text are Caraka (3.17), *Gaurīmata* (2.7), Hārīta (3.17), Nala (11.14), and Suśruta (3.17).

The *Kṣemakutūhala* is quoted in Vācaka Dīpacandra's *Laṅghanapathyanirṇaya* and Rājeśvaradatta Miśra's *Svasthavṛttasamuccaya*.

Special features

The *Kṣemakutūhala* contains such a large number of interesting technical terms that only a few of these can be mentioned. Seven types of pāka are distinguished: bharjana, talana,[346] sveda, pacana, kvathana, tāndūra and puṭapāka (1.37–41). The terms vesavāra, kāsamarda, karāla and uddhūlana are used in the sense of condiment (1.42–50).

Noteworthy among the dishes described are, e.g., aṅgārakarkarī (10.80–81),[347] barbara (10.126–127), candrahāsā (10.87), harīsā (6.60–61),[348] jalebī (10.122–125),[349] karcarī (6.48–49), kāsāra (10.138–141),[350] parpaṭa (6.39–40),[351] samosā (6.131–135),[352] sevikā (10.142–144),[353] tāhaḍī (6.43–44),[354] taradvaṭī (10.113–115), and veṭikā (10.82–84).[355]

Remarkable names of plants are bhairaṇḍa (8.91–92), caceṇḍa (8.42), ḍhehikā (8.185–186), gaulāla (5.34, 39 and 47),[356] kohaḍa (8.101–102), makhāṇa (10.98),[357] poyikā (8.114–117), ṭeṇṭī (8.60–61), ṭiṇḍisa (8.46–47), and viṣāṇa (8.81–82).

The author

The genealogy of Kṣemaśarman,[358] as recorded in the introductory verses, is as follows. He descended from Dvijarāja, a Sannāha(-brāhmaṇa) of the Bharadvājakula, father of the physicians Dharmadhara and Rāma. The latter was the father of Yati who had six sons: Yaśorāja, Mahārāja (a famous physician who served Śakeśvara), Prahlāda, Kāmarāja, Hrādani,[359] and Tripurāri. Hrādani, who had studied Caraka, Suśruta and Vāgbhaṭa, had five sons: Manmatha, Jayaśarman, Vāmadeva, Paṇḍita and Sūryadāsa. Manmatha, a physician, had two sons, who were also physicians: Kṣemaśarman and Mallinātha. Kṣemaśarman, our author, was an expert in various sciences and served king Vikramasena. Kṣemaśarman's mother, Sītā, of the Nimbaśākhikula, became a satī after her husband's death. Kṣemaśarman's teacher was Sūryadāsa, the youngest brother of his father. One of the last verses of the *Kṣemakutuhala* (12.123) mentions the names of the six sons of Kṣemaśarman: Gopāla, Śivapāla, Mādhavavara, Nārāyaṇa, Rāma and Lakṣmaṇa.

Date

The date of completion of the *Kṣemakutūhala* is given in a verse at the end of the work (12.127)[360] as the thirteenth day of the bright half of Kārttika in the year 1605 of the Vikrama era, i.e., A.D. 1549.

Lakṣmaṇa Paṇḍita

Lakṣmaṇa Paṇḍita[361] was the author of the *Yogacandrikā*,[362] also called *Vaidyakayogacandrikā*[363] and *Gūḍhaprakāśikā*.[364] This work, dealing with materia medica and therapeutics, contains 1,700 verses,[365] arranged in thirty-eight chapters.

Authorities referred to in the *Yogacandrikā* are Caraka, Hārīta, Parāśara, and Suśruta.

Lakṣmaṇa's *Yogacandrikā* is one of the sources of Hariprapanna's *Rasayogasāgara*.[366]

Two more works ascribed to Lakṣmaṇa are a commentary on the *Raghuvaṃśa* called *Advaitasudhā*[367] and the *Săracandrikā*.[368]

Lakṣmaṇa was the son of Datta of the Brahmajñānin family. He had three elder brothers, Gaṇeśa, Raghunātha, and Rāma, and one younger brother, Viṭṭhala,[369] and was a southerner, possibly a Mahārāṣṭra brāhmaṇa, who abandoned his property and went to Benares.[370] Lakṣmaṇa studied medicine at Benares under the tuition of two brothers, Nāgeśa (or Nāganātha, the author of the *Nidānapradīpa*) and Nārāyaṇa (who wrote the *Jvaranirṇaya* and a commentary on Śārṅgadhara's *Triśatī*), which implies that the *Yogacandrikā* dates from the sixteenth century.[371]

Lokanātha

Lokanātha, a kāyastha, wrote, in 1568, the *Mallaprakāśa*,[372] a work ascribed to the author's patron, Malladeva of Yodhapura, who has been identified as Māladeva of Yodhpur, who reigned in the period 1551–1568.[373] The *Mallaprakāśa* describes medicinal preparations, grouped together as ghṛtas, tailas, etc., against various diseases;[374] the examination of the pulse is also dealt with.[375] Other works by the same author are a *Kālajñāna*[376] and a *Tṛtīyajvarāṣṭaka*.[377]

Lolimbarāja

Lolimbarāja was the author of four medical kāvyas, the *Camatkāracintāmaṇi*, *Vaidyajīvana* and *Vaidyāvataṃsa*, all three written in Sanskrit, and the *Vaidyakakāvya*, written in Marāṭhī. He also composed a religious poem in Sanskrit on the life of Kṛṣṇa, ending with the death of Kaṃsa, called *Harivilāsakāvya*, and a poem in Marāṭhī with the title *Ratnakalācarita*.[378]

The *Camatkāracintāmaṇi*[379] is a kāvya in 242[380] ingenious verses of diverse metres,[381] which are addressed to the poet's beloved as a reply to her questions pertaining to med-

ical matters. The poem therefore abounds with skillful verses extolling female beauty and charms.

Chapter (vilāsa) one (ninety-three verses) has seven introductory verses, which mention the title of the work and a number of sources (Ātreya, Bheḍa, Bhoja, Hārīta, Parāśara); the remaining part deals with the treatment of fevers. Chapter two (thirty-eight verses) contains prescriptions against atisāra and grahaṇī. Chapter three (fifty verses) is about the therapy of a series of unconnected disorders (1–35) and women's diseases (36–50). The diseases mentioned in chapter four (forty-three verses) do not show any systematic arrangement at all. Chapter five (eighteen verses) is concerned with vājīkaraṇa.

The prescriptions of the *Camatkāracintāmaṇi* are simple and contain for the greater part ingredients which are well known from the classical texts.[382]

An abundance of pitta is called karālapitta (4.21).

Verses from the *Camatkāracintāmaṇi* form part of Trimalla's *Yogataraṅgiṇī*[383] and the *Yogaratnākara*.[384] Nayanasukha's *Vaidyamanotsava* is said to have been influenced by the *Camatkāracintāmaṇi*.[385]

The *Vaidyajīvana*,[386] regarded as Lolimbarāja's best poem,[387] has the same structure as the *Camatkāracintāmaṇi*.[388] It consists of 238 skillful verses of diverse metres,[389] arranged in five chapters (vilāsa).

Chapter one (eighty-two verses) deals,[390] after twelve introductory verses, with fevers,[391] chapter two (thirty verses)[392] with jvarātisāra, atisāra and grahaṇī, chapter three (forty-eight verses)[393] with various disorders (1–37), women's diseases (38–46)[394] and children's diseases (47–48), chapter four (fifty-four verses)[395] with various disorders, and chapter five (twenty-four verses)[396] with vājīkaraṇa.[397] The materia medica differs from that of the *Camatkāracintāmaṇi* in including many inorganic substances, in particular for vājīkaraṇa purposes in a number of rasayogas (5.13–20).[398] Religious elements in its therapy are rather rare (1.59; 5.23), but allusions to mythology are frequent. One of the formulae is called after the author's wife (ratnakalācūrṇa; 2.23). The only authority referred to is Parāśara (1.25).

The *Vaidyajīvana* is mentioned in Nidhi's *Yogasamuccaya*. The work is quoted in the *Āyurvedīya Khanijavijñāna*, *Bheṣajasaṃhitā*, Hanumatprasāda's commentary on the *Siddhabhaiṣajyamañjūṣā*, Hariprapanna's *Rasayogasāgara*, Jñārasarāmaśarman's *Anupānadarpaṇa*, Pratāpasiṃha's *Amṛtasāgara* and Jñārasarāma's version of this work, Trimalla's *Yogataraṅgiṇī*,[399] Vidyāpati's *Vaidyarahasya*,[400] and the *Yogaratnākara*;[401] it is probably quoted as *Vaidyasaṃjīvanī* in Ananta's *Pratāpakalpadruma* and as *Vaidyakasaṃjīvana* in Vācaka Dīpacandra's *Laṅghanapathyanirṇaya*. The *Vaidyajīvana* was one of the sources of Raghunāthajī's *Nighaṇṭusaṃgraha* and the *Rasoddhāratantra*. Modern works that have incorporated verses from the *Vaidyajīvana* are Yādavjī Trikamjī's *Rasāmṛta* and *Siddhayogasaṃgraha*,[402] and the *Vaidyakīya Subhāṣitāvalī*.[403] The *Vaidyajīvana* has influenced Nayanasukha's *Vaidyamanotsava*,[404] Raghunātha Paṇḍita's *Cikitsāmañjarī*, and Benīprasāda's *Lolamarāja*.[405] The work was translated into Hindī verse by Bohare Īśvarīprasāda of Dhaulapura in 1842/43.[406]

Commentators on the Vaidyajīvana

Commentators on the *Vaidyajīvana* are: (1) Dāmodara alias Jñānadeva.[407] A MS of his commentary dates from 1612/13.[408]

(2) Gosvāmin Harinātha, son of Manohara[409] and grandson of Lakṣmīdāsa.[410] The title of his commentary is *Gūḍhārthadīpikā*.[411] It is said to have been written in 1673/74.[412] The author was a resident of Kuśapura on the banks of the Vitastā.[413] Harinātha is also sometimes credited with a *Bhuvaneśvarīstotrabhāṣya*,[414] *Ṣaṭpañcaviṃśakā*, *Svapnādhyāya*,[415] and *Hastapādasamudrikālakṣaṇāni*.[416]

(3) Rudrabhaṭṭa,[417] son of Koneribhaṭṭa.[418] Rudrabhaṭṭa's genealogy was as follows:[419] Kṛṣṇabhaṭṭa, Kṛṣṇavaidya or Śrīkṛṣṇa[420] of Māṇḍa family,[421] of Ṣaṭkhetaka on the Godāvarī, dharmādhikārin of king Rāmadeva – Haribhaṭṭa or Hīrabhaṭṭa (a physician) – Viṣṇu - Koneribhaṭṭa[422] – Rudrabhaṭṭa; Viṣṇu's brother was Nārāyaṇa, author of the *Oṃkāragrantha*.[423]

The earliest dated MS of Rudrabhaṭṭa's commentary, called *Dīpikā*,[424] was completed in A.D. 1766.[425] Rudrabhaṭṭa, who can be assigned to the seventeenth century because his father was the court physician of 'Abdu'l-Raḥīm,[426] is credited with five commentaries,[427] written at the request of Mirzā Khān,[428] as well as with a comprehensive work on medicine[429] and a *Saṃnipātakalikā*.[430]

Works and authors quoted by Rudrabhaṭṭa in his commentary on the *Vaidyajīvana* are:[431] Amara, Amitaprabha (2.19), *Anekārtha* (1.70; 2.10), *Anekārthadhvanimañjarī* (4.1), *Ārogyacintāmaṇi* (4.24), *asmatkṛtaśārṅgadharaṭīkā* (4.4), Bakula (4.21), Bheḍa (1.6), Bhoja (1.6), Bhṛgu (1.6), *Cakradatta* (3.40), Caraka, *Dhvanimañjarī* (1.73), *Kāmaśāstra* (1.61), *Mārkaṇḍeyapurāṇa* (1.2), *Nighaṇṭu* (1.18, 63, 69; 4.38), Ratnakalā (3.42), Ratnaprabhākāra (1.29), Suśruta, Vāgbhaṭa, Vaṅgasena (1.63; 2.5; 4.31), Viśva, Vopadevapaṇḍita (3.40), and Vṛnda (2.16).

(4) Sukhānandanātha,[432] pupil of paramahaṃsaparivrājakācārya Hariharānandanātha. His commentary, called *Lolimbarājadīpikā*, was completed in 1863/64. The author may have been an inhabitant of Gujarāt, since he mentions some Gujarātī names of medicinal plants.[433]

Authorities and works quoted or referred to in the commentary are: Agniveśya (1.5), Amara (1.2, 3, 6, 33, 68; 3.16; 4.26), Bhāva (i.e., Bhāvamiśra; 3.34), Bhāvamiśra (1.62, 64, 75; 3.38), *Bhāvaprakāśa* (1.15, 38; 3.35, 38; 5.8, 20), *Bṛhadāraṇyaka* (5.20), Cakrapāṇidatta (1.26, 37, 46, 56, 59; 2.1, 4, 6; 3.18, 27, 37; 4.7, 12, 33), Cakrapāṇidattamiśra (3.38), Caraka (1.5, 10, 13, 46; 4.28), Divodāsa (5.21), Hārīta (1.5), Hemacandra (1.32, 57; 4.17; 5.20), Jaiyyaṭa (1.46), *Kośa* (1.11), *Kulārṇava* (5.20),[434] Laṭakanasūnu (i.e., Bhāvamiśra: 2.8), Mādhava (4.36),[435] Mādhavakāra (1.43–44, 76),[436] Manu (5.20), Mārkaṇḍeya (1.2), *Matsyapurāṇa* (1.3), Medinīkāra (1.31, 41, 62, 66, 69, 70; 3.16), *Medinīkośa* (3.16), *Nighaṇṭu* (1.18; 2.10), *Nṛsiṃhapurāṇa* (2.20),[437] *Sukhabodha* (5.20),[438] Suśruta (1.5, 49; 4.28), Vāgbhaṭa (1.3, 5, 7, 8, 13, 49; 3.24), Vaṅgasena (1.59), Videha (1.75), *Viṣṇutilaka* (4.31),[439] *Viśva* (1.1, 2, 6, 9),[440] Yāska (5.20), and *Yogatantra*[441] (1.7).[442]

Sukhānanda's commentary contains a number of interesting explanations.[443]

(5) Bhagīratha,[444] son of Harṣadeva of the Pītamuṇḍī family. Bhagīratha lived under Jagaccandra Kūrmācala; he called his commentary on the *Vaidyajīvana* *Jagacca-*

ndrikā,[445] and that on Kālidāsa's *Raghuvaṃśa Jagaccandracandrikā*,[446] in compliment to his patron.[447]

(6) Bhavānīsahāya.[448] This author also wrote a commentary on the *Mādhavanidāna* and a *Yogacintāmaṇiṭippaṇa*.[449]

(7) Kṛṣṇapaṇḍita.[450] A commentary called *Dīpikā*[451] is ascribed to Kṛṣṇapaṇḍita, son of Ammaṇapaṇḍita, who is referred to as śrīvijayapurādhīśa and vaidyapurandhara.[452] The introductory verse praises the author's father, Koneri, which indicates that it may be identical with Rudrabhaṭṭa's commentary.[453]

(8) Prayāgadatta. His commentary is called *Vijñānānandakarī*.[454]

(9) Tātā Sūryanārāyaṇa, son of Veṅkaṭeśvara; the commentary is called *Vidvadvaidyarañjanī*.[455]

(10) Sumatidhīra, a Jain monk of the Kharataragaccha. The commentary dates from 1784/85.[456]

(11) Cainasukha, a Jain monk of the Kharataragaccha. The commentary, written in Rājasthānī, dates from about 1763/64.[457]

An elaborate anonymous commentary is also recorded.[458]

The *Vaidyāvataṃsa*[459] is a short nighaṇṭu[460] in 172 verses.[461] Unlike the *Camatkāracintāmaṇi* and the *Vaidyajīvana*, it is for the greater part written in simple Sanskrit.[462] It describes the medicinal properties of a series of dietetic substances and drugs,[463] which are arranged as follows: fruits (4–21),[464] vegetables (22–35), spices (36–50), various substances (51–108), grains and pulse (109–147), the flesh of some animals (148–150), dairy produce and the products of the sugarcane (151–169). Synonyms are given in a restricted number of instances, particularly in the verses dealing with various substances.[465]

Sources mentioned are Atritanaya (i.e., Ātreya), Caraka, Suśruta, and Vāgbhaṭa (2 and 170). Sources that may have been used, but not referred to by name are the *Dhanvantarīya*-[466] and *Rājanighaṇṭu*.[467]

The *Vaidyāvataṃsa* is quoted in the *Yogaratnākara*.[468] It may also be quoted, as Lolimbarāja, in Śivadatta's commentary on his *Śivakoṣa*

Noteworthy names of plants are: ābhābabbulikā (68), aśvabalā (36),[469] babbūla (108), bhaṅgikā (66),[470] bṛhacchatāhvā (38), cāruka (123),[471] ḍangarī (79),[472] dhūmavṛkṣa (= tamākhū; 59), ḍikemālī (55),[473] gurusa (125), hastighoṣā (26),[474] junhala (= yāvanāla; 121), jūrṇākhya (= yāvanāla; 121), khurasānapradeśajā yavānī (77),[475] kolāmbikā (14), kṣupopodaka (74), kujavallī (= ḍikemālī; 55), makkā (= yāvanāla; 144), mehāri (107),[476] mṛgākṣī (81),[477] nartaka (136),[478] tamākhū (59),[479] and tīvrasāra (105).[480] Most of these plants are not prescribed in the *Camatkāracintāmaṇi* and the *Vaidyajīvana*. Opium is absent from the *Vaidyāvataṃsa*, although khākhasavalkala is employed as a medicinal substance in the *Camatkāracintāmaṇi* (5.16).

The *Vaidyakakāvya*[481] is a poem in ninety-five verses on the therapy of a number of diseases.[482] In contradistinction to most medical works, fever is the last disease dealt with. Some of the formulae closely resemble yogas found in the *Camatkāracintāmaṇi* or *Vaidyajīvana*, but the major part of them is new. The *Vaidyakakāvya* has not been

written in the form of a dialogue and the name of the poet's wife is not mentioned in it.

Lolimbarāja is mentioned as one of the sources of the *Amṛtasāgara*. Lolimbarāja is quoted in Lakṣmīdhara's *Cikitsāsaṃgraha*, Veṇīdatta's *Padyaveṇī*,[483] the *Subhāṣitasārasamuccaya*,[484] and Siddhicandra's *Sūktiratnākara*;[485] he is referred to by the Marāṭhī saint Devadāsa.[486] The *Harivilāsakavya* of Lolimbarāja has influenced Rudrakavi in composing his *Rāṣṭrauḍhavaṃśamahākāvya*,[487] completed in A.D. 1596.[488]

The author

Lolimbarāja[489] was a son of Divākara[490] and a resident of the town Junara[491] in the Poona district of Mahārāṣṭra. He married the daughter of a Muslim sūbedār (governor of a province),[492] called Murāsā, whose name was changed into Ratnakalā after becoming his wife,[493] and whose beauty, learning, etc., are eulogized in numerous verses of Lolimbarāja's works.[494] Lolimbarāja was a courtier of one or more royal persons,[495] as shown by epithets conferred upon himself[496] and by references to a king called Hari, son of Sūrya,[497] on whose request he composed the *Harivilāsakāvya*.[498] This Hari may have been some minor ruler since no important king of this name is known from the period of Lolimbarāja's literary activity.[499] After Ratnakalā's death, when the poet was about fifty years of age, he turned to an ascetic mode of life and became a sādhu.[500]

Lolimbarāja appears to have belonged to those Mahārāṣṭra brāhmaṇas who especially study the Mādhyaṃdina recension of the *Śuklayajurveda*.[501] He was especially devoted to the goddess Saptaśṛṅgī,[502] who has a shrine on the slopes of the mountain Sahya in the Nāsik district.[503]

Lolimbarāja's fame as a poet appears from quotations in anthologies. That he was aware of his excellence in writing poetry is evident from a series of laudatory epithets found in his own works.[504] He claims that he was not only an expert in poetry and medicine,[505] but also in music.[506]

The chronological order of Lolimbarāja's works has been established by B. Tripāṭhī as follows:[507] (1) *Vaidyāvataṃsa*, (2) *Vaidyajīvana*, (3) *Camatkāracintāmaṇi*, (4) *Vaidyakakāvya*, (5) *Ratnakalācarita*, (6) *Harivilāsakāvya*.

Date

Various suggestions have been put forward regarding the period in which Lolimbarāja lived and the dates of composition of his works. Some authorities are of the opinion that the author of the *Harivilāsa* was a contemporary of king Bhoja.[508] The untenability of this view has been demonstrated by B. Tripāṭhī.[509] The arguments brought forward by P.K. Gode[510] in trying to establish that the author of the *Harivilāsa* was different from and lived about thirty years earlier than the Lolimbarāja who composed the other works have also been invalidated by B. Tripāṭhī,[511] thus proving that one and the same Lolimbarāja wrote the four medical works, the *Ratnakalācarita* and the *Harivilāsakāvya*. This Lolimbarāja is assigned to the period A.D. 1310–1370 by P. Hymavathi,[512] to 1538–1608 by B. Tripāṭhī,[513] to 1578–1648 by L.R. Pāṅgārkar,[514] to about 1625 by P.V. Sharma,[515] and to the seventeenth century by V.L. Bhāve.[516]

The exact period of his literary activity depends on the dates of MSS of his compositions and their reliability. Two MSS of the *Harivilāsakāvya*, preserved respectively in the Tanjore and BORI collections, are said to state that this work was composed in 1583/84.[517] The earliest dated MS of the *Vaidyajīvana* was completed in 1607/08;[518] a MS of this poem with the commentary of Jñānadeva alias Dāmodara was completed in 1612/13.[519]

The period of Lolimbarāja's literary activity may therefore have been the last quarter of the sixteenth century if the evidence referred to is reliable. B. Tripāṭhī, being convinced that the style and structure of the *Harivilāsakāvya* prove it to be the most mature of Lolimbarāja's works, written when he may have been forty-five years of age, has concluded that he was born in 1538, but the onus of this assertion has to be left on this author. The proposed date of Lolimbarāja does not conflict with the chronology of authors quoting him or influenced by him.

Moreśvara

Moreśvara,[520] son of the physician Māṇikyabhaṭṭa[521] or Māṇikabhaṭṭa,[522] and a resident of Ahaṃmadanagara,[523] wrote his *Vaidyāmṛta*[524] in 1546/47.[525]

This work is a short therapeutic treatise of about 180 stanzas,[526] divided into four chapters (alaṃkāra). The order of the diseases is for the greater part the same as in the *Mādhavanidāna*; prescriptions against pānātyaya, unmāda, hṛdroga, and mūtrāghāta appear to be absent;[527] two recipes against jvarātisāra occur in the work (1.22–23); a pauṣṭika-, stambhana-, and drāvaṇayoga are added between the prescriptions against prameha and medoroga.

The author states that his therapy is partly based on his own experience, partly on that of his teacher, and partly again on medical treatises (4.21); recipes derived from his teacher are sometimes specified as such (1.28; 2.8); one recipe is said to be decidedly effective although not found in authoritative texts (1.22).[528]

Moreśvara's work contains mainly āyurvedic prescriptions, but he also included some rasayogas. The recitation (kīrtana) of the hymn in praise of Śītalādevī is said to cure visphoṭa and not, as usual, masūrī (3.37). The materia medica does not contain noteworthy substances, apart from isabagola (1.22)[529] and riṅgaṇī (1.12).[530] Once a disorder called jhañjhā (1.7)[531] is referred to.

Authorities mentioned are Ātreya, Pārāśara, Suśruta, and Vāgbhaṭa (1.1–2).

Moreśvara's *Vaidyāmṛta* is quoted in Hariprapanna's *Rasayogasāgara* and in the *Tāmbūlamañjarī*.

Moreśvara's *Vaidyāmṛta* is said to be one of the sources of Raghunāthajī's *Nighaṇṭusaṃgraha*. A *Vaidyāmṛta*[532] is one of the sources of Raṅgajyotirvid's *Vicārasudhākara*.

Moreśvara is also credited with a *Nidānasiddhi*, which may have formed part of a larger work called *Cikitsāsāra*.[533]

A commentary on Moreśvara's *Vaidyāmṛta* was written by Jyotiḥsvarūpa, pupil of Bhagavadbodhasvarūpa.[534]

Nāganātha

Nāganātha[535] was the author of the *Nidānapradīpa*,[536] a rather extensive textbook of pathology (nidāna), written in ślokas.[537] Though sometimes regarded as a commentary on the *Mādhavanidāna*,[538] it is an independent treatise.

Authorities and works quoted or referred to are: Agniveśa, *Aṣṭāṅgahṛdaya*, Bhaṭṭārakahariścandra, Bhoja, Cakra, Candrikākāraka, Caraka, Dṛḍhabala, Gadādhara, Gayadāsa, Guṇākara, Hariścandra, Hārīta, Īśāna, Jaijjaṭa, Jātūkarṇya, Kārttika, Khāranāda, Khāraṇādi, Kṣīrapāṇi, Mādhava, Nāgabhartar, Nāgārjuna, *Smṛtisaṃgraha*,[539] Suśruta, Vāgbhaṭa, Vāpyacandra, Videha, *Viśvakośa*, *Vṛddhabhoja*, and *Vṛddhavāgbhaṭa*.

Nāganātha was the eldest son of Kṛṣṇabhaṭṭa,[540] -paṇḍita, or -sūri and a descendant of a family of physicians. He was probably the elder brother and teacher of Nārāyaṇa, who wrote the *Jvaranirṇaya* and a commentary on Śārṅgadhara's *Triśatī*,[541] and also one of the teachers of Lakṣmaṇa, the author of the *Yogacandrikā*.[542] Since the *Triśatī* belongs to the fifteenth century, Nārāyaṇa and his brother Nāganātha cannot be earlier and may belong to the sixteenth century. The earliest MS of the *Nidānapradīpa* dates from 1684/85.[543] P.V. Sharma[544] suggested that Nāganātha may have been the great-grandfather of Koṇerībhaṭṭa, the father of Rudrabhaṭṭa, the author of commentaries on the *Śārṅgadharasaṃhitā* and Lolimbarāja's *Vaidyajīvana*, but this would conflict with the date of Rudrabhaṭṭa, wo lived about A.D. 1600.

Nārāyaṇa

Nārāyaṇa was the author of a remarkable and interesting monograph on fevers, called *Jvaranirṇaya*.[545]

Contents

The treatise consists of 405 verses,[546] for the greater part ślokas, arranged in five chapters (prakaraṇa). It deals exclusively with the pathology of fevers, not with their treatment.

The opening verse is a maṅgala addressed to Gopāla, i.e., Kṛṣṇa. Chapter one (upodghātaprakaraṇa; forty verses) is about general principles of pathology and therapy. Chapter two (pṛthagjātaprakaraṇa; sixty-two verses) treats, as its title indicates, of fevers caused by one doṣa (44–51: anilajvara; 52–54: pittajvara; 55–56: kaphajvara).[547] Apart from this, it is also concerned with fever in general, its nidāna, saṃprāpti, prodromes and symptoms (1–24), its number of types (25 and 32–35), and with irregular fevers (viṣamajvara: 36–43). Chapter three (dvandvajaprakaraṇa; twenty-five verses) has fevers by two doṣas for its subject. The fourth and longest chapter (tridoṣajaprakaraṇa; 241 verses) is about fevers by three doṣas. It distinguishes and describes prakṛtisamasamaveta types (2–15)[548] and numerous vikṛtiviṣamasamaveta types. After enumerating the symptoms of saṃnipāta fever in general (41cd–47),[549] and those of the fever called abhinyāsa or hataujas (48–51ab),[550] a verse is inserted about the swelling at the root of the ear which appears towards the

end of a saṃnipāta fever (51cd–52ab),[551] whereupon the subject of abhinyāsa fever is continued, distinguishing several varieties of it (52cd–57ab). Then three series of thirteen saṃnipāta fevers of the vikṛtiviṣamasamaveta type are characterized: the first series (58–101ab) is said to be taken from the *Bhālukitantra*;[552] the second series (102–115) occurs, in a different order, in Śārṅgadhara's *Triśatī* (175–187);[553] the third series (119–138ab) is also found in that text.[554] Chapter four includes descriptions of the fevers called madhara (139cd–142), pralepaka (143–144)[555] and vātabalāsaka (145),[556] the śītapūrva and dāhapūrva fevers, etc. (148cd–160),[557] the irregular fevers together with their viparyaya types and their symptoms when they are located in the seven dhātus of the body (161–226), saumya and tīkṣṇa fevers (227–229), the stages of fever (230–236), and the signs of release from fever (237–241). Chapter five (āgantujaprakaraṇa; thirty-seven verses) deals with exogenous (āgantu) fevers (1–14), curability and incurability of fevers (15–17), and signs indicating the approach of death (18–33).

Sources indicated by the author are: Bhāluki (4.101 and 214), Caraka, (1.2; 5.37), Jejjaṭa (3.20; 4.176), Khāraṇādi (4.36–37),[558] Mādhava (4.153), muni (i.e., Vāgbhaṭa; 4.197), Nāgabhartar (4.166), ṛṣi (i.e., Vāgbhaṭa; 1.33), sāmpradāyikāḥ (4.212), Suśruta (3.19; 4.36; 5.37), tāntrikāḥ (4.53), tārkikāḥ (2.21), Vāgbhaṭa (4.16, 41, 153), and *Vṛddhasuśruta* (4.102). The *Carakasaṃhitā*, *Suśrutasaṃhitā*, *Aṣṭāṅgahṛdayasaṃhitā*, *Aṣṭāṅgasaṃgraha* and *Mādhavanidāna* were, however, utilized on a larger scale than appears from the above list.[559] In a number of instances the author refers to his own view as opposed to that of others.[560]

Special features

The author distinguishes first the usual six types of irregular fever: satata, prātyahika (= anyedyuṣka), tṛtīyaka, caturthaka, tṛtīyakaviparyaya and caturthakaviparyaya (2. 38–39), but describes later four viparyaya types: satata-, anyedyuṣka-, tṛtīyaka-, and caturthakaviparyaya (4.186–189).[561] Fevers by vāta are said to be of three varieties: satata, śuddhasatata and śuddhaprātyahika (2.42). Fevers by two doṣas may present the same three varieties, with the exception of the fever by kapha and pitta (3.14), because vāta is absent there. Tṛtīyaka and caturthaka, however, are never caused by two doṣas, but always by three (3.24). The distinction between prakṛtisamasamaveta and vikṛtiviṣamasamaveta fevers,[562] and that between prākṛta and vaikṛta types,[563] have an important place throughout the work, as well as the periods of time during which a particular fever presents itself.[564] The madhara fever, characterized by eruptions in the throat and on the chest, together with lassitude (tandrā), and occurring in Mahārāṣṭra, is described as an example of those fevers which were omitted by the ṛṣis and ācāryas (4.138–142).[565]

The author

At the end of the work (5.36), the author mentions that his name is Nārāyaṇa, that his father instructed him in the śāstras, and that his brother was his preceptor in medicine. According to the colophon, the author's name is Nārāyaṇa Paṇḍita and his father's Kṛṣṇa Paṇḍita.[566] These indications suffice to identify him as the younger brother of Nāganātha, who wrote the *Nidānapradīpa*, and as one of the teachers of Lakṣmaṇa Paṇḍita, who composed the *Yogacandrikā*.[567] Besides the *Jvaranirṇaya*, Nārāyaṇa wrote a commentary on Śārṅgadhara's *Triśatī*.

Date

Nārāyaṇa can be assigned to the sixteenth century, since he was the younger brother of Nāganātha and one of the teachers of Lakṣmaṇa Paṇḍita. This date is corroborated by his commentary on the *Triśatī*, because the latter work was written during the fifteenth century.

The *Rājanighaṇṭu* or *Nighaṇṭurāja*

The *Rājanighaṇṭu*[568] or *Nighaṇṭurāja*,[569] also called *Abhidhānacūḍāmaṇi*,[570] is the largest extant lexicon of materia medica; it deals with the names and properties of medicinal substances, as well as with a series of related subjects.

Contents[571]

The work consists of about 3,300 verses,[572] arranged in twenty-two chapters (varga), preceded by an introduction (prastāvanā; twenty-three verses), and followed by a section on ekārthas and anekārthas (258 verses). One of the introductory verses (3) contains a salutation addressed to Śiva, Brahmā, Indra, the Aśvins, Ātreya,[573] Dhanvantari, Caraka, and Suśruta.

The author declares to have collected all those names of medicinal substances which are useful to a physician, regardless whether they are of Sanskrit, Prakrit, or Apabhraṃśa origin (10). He announces his intention to describe the drugs according to their traditional usage (rūḍhi), svabhāva, local names (deśyokti), special characteristics (lāñchana), names based upon similarities (upamā), vīrya, and names employed in foreign countries (itarāhvaya) (13). He adds that he has taken into consideration their names in the languages of Karṇāṭa and Mahārāṣṭra, and that he regards it as useful to know their names in the languages of Āndhra and Lāṭa[574] (18). A short table of contents is found at the end of the introduction (20–21). The first chapters have no parallel in other nighaṇṭus.

Chapter one (ānūpādivarga; thirty-nine verses) is concerned with the characteristics of the various types of country (deśa) and soil (kṣetra), the deities presiding over the types of soil, the characteristics and uses of trees and other kinds of plants and their products as dependent on the type of soil they are growing on, the definitions of the five classes of plants, the characteristics of plants considered to be of the male, female or neuter gender, and the relationship between parts of plants and the five mahābhūtas. Chapter two (dharaṇyādivarga; seventy-one verses) deals with synonyms for earth, mountain, forest, etc.; it also contains a list of nakṣatravṛkṣas.[575]

Chapters three to thirteen contain enumerations of the names and properties of medicinal substances, arranged in the following groups: guḍūcyādi-,[576] śatāhvādi-,[577] parpaṭādi-,[578] pippalyādi-,[579] mūlakādi-,[580] śālmalyādi-,[581] prabhadrādi-,[582] karavīrādi-,[583] āmrādi-,[584] candanādi-,[585] and suvarṇādivarga.[586]

Chapters fourteen to seventeen are about articles of food: water, the sugarcane and its products, types of sugar derived from other plants than the sugarcane, honey, and alcoholic drinks (chapter fourteen: pānīyādivarga); milk and other dairy produce, kāñjika and similar products of acid fermentation, urines and oils (chapter fifteen: kṣīrādivarga); grain and pulse (chapter sixteen: śālyādivarga); meat (chapter seventeen: māṃsādivarga).

Chapter eighteen (manuṣyādivarga) is about names of human beings, anatomical terms, and some related subjects, chapter nineteen (siṃhādivarga) about the names of animals, chapter twenty (rogādivarga) about the names of diseases, about medicinal preparations, the tastes and their combinations, etc., chapter twenty-one (sattvādivarga) about the three guṇas and the character of human beings dominated by one of these, the three doṣas and the constitutions, weights and measures, divisions of time, the quarters of the sky, etc., and chapter twenty-two (miśrakādivarga) about groups of medicinal substances.

The work ends with ekārthas and anekārthas, the latter being divided into groups of names having two up to eleven meanings. These lists of ekārthas and anekārthas pose a number of problems since some of the ekārthas have more than one meaning in the *Nighaṇṭu*,[587] while, moreover, some synonyms figuring in these lists are not found there.[588]

The style of the *Rājanighaṇṭu*, especially that of the prastāvanā and the concluding verses of each varga, is rather ornate. The arrangement of the medicinal substances differs considerably from that found in the *Dhanvantarīyanighaṇṭu*, apart from the contents of a few vargas, notably the śatāhvādi- and candanādivarga. The strings of synonyms, usually longer than those of the *Dhanvantarīyanighaṇṭu*, are rarely identical with those of the latter work,[589] whereas the verses describing the properties of drugs more often are.[590] A conspicuous feature is the mention of the number of synonyms at the end of each series.

The *Rājanighaṇṭu* describes more medicinal substances than the *Dhanvantarīyanighaṇṭu*[591] and distinguishes a larger number of varieties. On the other hand, a small number of drugs included in the *Dhanvantarīyanighaṇṭu* are absent from the *Rājanighaṇṭu*, e.g., śvāsāri (*Dhanvantarīyanighaṇṭu* 1.72), kapaṭa (1.82–83), guṇṭha (1.83–84), kāsaghnī (1.98–100), vijayā (1.130–131), śvetapuṣpī (1.252–253), the varieties of yavānī (2.93–94), girisindūra (3.103–104), vaṭasaugandhika (3.114–115), jalapippalī (4.64–65), and kiṅkirāta (5.156–158). The compilatory character of the *Rājanighaṇṭu* is, in the same way as in the *Dhanvantarīyanighaṇṭu*, apparent from quotations,[592] which are, however, less frequent than in the latter work.

Sources mentioned by the author of the *Rājanighaṇṭu* in the introductory verses are: the *Dhanvantarīyanighaṇṭu*, the works of Madana[593] and Halāyudha,[594] the *Viśvaprakāśa*,[595] the *Amarakoṣa*, and the *Śeṣarāja*.[596] He states explicitly that Dhanvantari's treatise is his chief authority and model. Some more works referred to are *Bṛhatsuśruta*, *Nāradīya(tantra)*, and *Nārāyaṇī*.[597]

The *Rājanighaṇṭu* is quoted or referred to in Ambikādattaśāstrin's commentary on the *Rasendrasārasaṃgraha*, Baladeva Prasāda Miśra's *Āyurvedacintāmaṇi*, Bhānuji Dīkṣita's commentary on the *Amarakoṣa*,[598] the *Bṛhannighaṇṭuratnākara*,[599] Cūḍāmaṇimiśra's *Rasakāmadhenu*, Gulrājśarmamiśra's commentary on the *Āyurvedaprakāśa*,[600] Hārāṇacandra's commentary on the *Suśrutasaṃhitā*, Haridattaśāstrin's commentary on the *Rasataraṅgiṇī*, Indu's *Śaśilekhā* on the *Aṣṭāṅgasaṃgraha*,[601] Jīvānandavidyāsāgara's commentaries on Gopālakṛṣṇa's *Rasendrasārasaṃgraha* and Kaṇāda's *Nāḍīvijñāna*, Khare's commentary on the *Rasaratnasamuccaya*, Lakṣmīrāma's commentary on the *Siddhabheṣajamaṇimālā*, Mādhava's *Āyurvedaprakāśa*, the *Pāradasaṃhitā*, Raghunātha's *Bhojanakutūhala*,[602] the *Śāligrāmanighaṇṭubhūṣaṇa* of the *Bṛhannighaṇṭuratnākara*, Āśubodha and Nityabodha Senagupta's commentary on the *Rasaratnasamuccaya*,[603] Priyavrat Śarmā's auto-commentary on his *Dravyaguṇasūtra*, Śivadattamiśra's commentary on his *Śivakoṣa*,[604] the *Tāmbūlamañjarī*, the *Smṛtyarthasāgara*,[605] Yādavjī Trikamjī's *Rasāmṛta*, the *Yogaratnākara*,[606] and Yogīndranāthasena's commentary on the *Carakasaṃhitā*.[607] It is quoted as *Abhidhānacūḍāmaṇi* in Kṛṣṇadatta's commentary on Trimalla's *Śataślokī*.

Naraharipaṇḍita is quoted in Priyavrat Śarmā's auto-commentary on his *Dravyaguṇasūtra*. Narahari is mentioned in Śailendrasiṃha's *Vaidyacintāmaṇibhaiṣajyasaṃgrahaya*.

Special features

The number of medicinal substances described in the *Rājanighaṇṭu* and absent from the *Dhanvantarīyanighaṇṭu* is too large to be enumerated.

Some of the more interesting new plants added are: agnidamanī (śatāhvādi 59–61),[608] āhulya (śatāhvādi 167–168),[609] aparvadaṇḍa (śālmalyādi 77–78),[610] asiśimbī (mūlakādi 183–184),[611] aśvakātharā (parpaṭādi 114–115),[612] bheṇḍā (śatāhvādi 26),[613] bhṛṅgāhvā (mūlakādi 47),[614] brahmadaṇḍī (parpaṭādi 133),[615] caṇikā (śālmalyādi 147),[616] dharaṇīkanda (mūlakādi 91–92),[617] dhūmrapattrā (parpaṭādi 34–35),[618] ekavīra (śālmalyādi 17–18),[619] gaṅgāpattrī (karavīrādi 162),[620] gomūtrikā (śālmalyādi 128),[621] gorakṣadugdhī (parpaṭādi 142–143),[622] gorakṣī (parpaṭādi 94–95),[623] guṇḍāsinī (śālmalyādi 148–149),[624] hastikanda (mūlakādi 80–82),[625] hastiśuṇḍī (parpaṭādi 77),[626] hemā (guḍūcyādi 42–44),[627] himāvalī (pippalyādi 245–246),[628] jambū (parpaṭādi 84–85),[629] jaraṇadruma (prabhadrādi 81–82),[630] jhaṇḍū (parpaṭādi 141),[631] jhiñjhirīṭā (śatāhvādi 201–202),[632] kaivartikā (guḍūcyādi 119–120),[633] kāmavṛddhi (śatāhvādi 196–197),[634] kaṇṭapuṅkhā (śatāhvādi 74),[635] karajoḍi (mūlakādi 121),[636] kārī (śālmalyādi 64–65),[637] karṇasphoṭā (guḍūcyādi 136–137),[638] karuṇī (karavīrādi 105–106),[639] kaṭvī (guḍūcyādi 138–139),[640] kevikā (karavīrādi 115–116),[641] kolakanda (mūlakādi 83–84),[642] kurī (śālyādi 138),[643] kuṭumbinī (parpaṭādi 78–80),[644] mahāpiṇḍī (prabhadrādi 140–141),[645] majjara (śālmalyādi 133),[646] mākandī (mūlakādi 42–43),[647] mālākanda (mūlakādi 97–98),[648] manthānaka (śālmalyādi 136),[649] māyāphala (pippalyādi 259),[650] mudgara (karavīrādi 77–78),[651] nakhaniṣpāvikā (mūlakādi 192),[652] niḥśreṇikā (śālmalyādi 130),[653] nīlāmlī (śatāhvādi 176),[654] pācī (karavīrādi 163–164),[655] pakvāṇḍa (śālmalyādi 43),[656] pallivāha (śālmalyādi 137),[657] paṇyāndhā (śālmalyādi 139–141),[658] peū (mūlakādi 48),[659] putradā (śatāhvādi 159–160),[660] putradātrī (guḍūcyādi 142–143),[661] sākuruṇḍa (pippalyādi 243–244),[662] samudraphala (pippalyādi 216–217),[663] sarpiṇī (parpaṭādi 125),[664] śaśāṇḍulī (mūlakādi 217–218),[665] śilpikā (śālmalyādi 129),[666] śimṛḍī (śatāhvādi 164–

165),[667] śolī (mūlakādi 44),[668] śrītāla (prabhadrādi 95–96),[669] śrīvallī (śālmalyādi 74–75),[670] śūlī (śālmalyādi 150–151),[671] svarṇulī (śatāhvādi 162),[672] śvetā (parpaṭādi 132),[673] śvetāmlī (śatāhvādi 175),[674] tairiṇī (śatāhvādi 127),[675] takrāhvā (śatāhvādi 161),[676] taraṭī (śālmalyādi 73),[677] ukhala (śālmalyādi 125),[678] uṣṭrakāṇḍī (karavīrādi 139–140),[679] viṣṇukanda (mūlakādi 89–90),[680] and vṛścikā (parpaṭādi 126).[681]

New varieties, added by the author of the *Rājanighaṇṭu* to those described in the *Dhanvantarīyanighaṇṭu*, are also rather numerous. Some of these are: ari (a variety of khadira; śālmalyādi 30),[682] bhūtumbī (a variety of alāmbunī; mūlakādi 167–168),[683] bṛhajjīvantī (a variety of jīvantī; guḍūcyādi 40–41),[684] catuṣpattrī (a variety of pāṣāṇabhedaka; parpaṭādi 45–46),[685] cīṇākarkaṭikā (a variety of trapusa; mūlakādi 213–214),[686] gorakṣatumbī (a variety of alāmbunī; mūlakādi 162–163),[687] kaiḍarya (a variety of nimba; prabhadrādi 13–14),[688] kaliṅga (a variety of trapusa; mūlakādi 169–170),[689] karkaṭa (a variety of vayasthā; āmrādi 198–199),[690] karkaṭī (a variety of trapusa; mūlakādi 202–204),[691] kāṣṭhadhātrī (a variety of vayasthā; āmrādi 160–161),[692] kṣīratumbī (a variety of alāmbunī; mūlakādi 164–166),[693] mahānīlī (a variety of nīlī; śatāhvādi 84–85),[694] mṛgākṣī (a variety of trapusa; mūlakādi 178–180),[695] nīlapunarnavā (a variety of punarnavā; parpaṭādi 121–122),[696] sarpatanu (a variety of bṛhatī; śatāhvādi 26–27),[697] śilāvalkā (a variety of pāṣāṇabhedaka; parpaṭādi 43–44),[698] śvetabṛhatī (a variety of bṛhatī; śatāhvādi 28–29),[699] tāmrakaṇṭaka (a variety of khadira; śālmalyādi 26–27),[700] vaṭapattrī (a variety of pāṣāṇabhedaka; parpaṭādi 41–42),[701] and viṭkhadira (a variety of khadira; śālmalyādi 28–29).[702]

Chapter nineteen is about the names and their synonyms of forty-eight animals. Interesting among these are, for example: brāhmaṇī (8),[703] jāhaka (10),[704] karṇajalūkā (13),[705] kīṭikā (46),[706] kokaḍa (5),[707] maṅkora (47), matkuṇa (17),[708] pakṣmayūkā (44),[709] pallī (11),[710] three kinds of pipīlikā (14–16),[711] ṣaḍbindukīṭa (48), śvetayūkā (45),[712] tailakīṭa (39), and yūkā (43).[713]

Chapter twenty mentions two series of the eight divisions (aṣṭāṅga) of āyurveda: (1) dravyābhidhāna, gadaniścaya, kāya, saukhya, śalyādi, bhūtanigraha, viṣanigraha, bālavaidya (20.42); (2) śalya, śālākya, kāya, bhūta, viṣa, bāla, rasāyana, vṛṣya (20.43). Noteworthy names of disorders from the same chapter are, for example: hṛdgranthi = hṛdvraṇa (24), jāṭharagranthi = gulma (10), kṣudrasphoṭa = kañcikā (7), lūtā = carmavraṇa = vṛkka (11), pītasphoṭa = pāmā (7), pramīlā = tandrā (28), pṛṣṭhagranthi = gaḍu (10), śākhāpitta (27), sacivāmaya = visarpa (3), śikhin = śvāsa (6), sūkṣmasphoṭa = vicarcikā (7), śuṇṭhikāsphoṭa = saṃcārī (7), tunda = sthaviṣṭha (22), udanyā = tṛṣṇā (17), utprāṇa = śvāsa (14).

Chapter twenty-two enumerates three groups of lohas (metals): the three lohas: suvarṇa (gold), rajata (silver), tāmra (copper) (22.11); the five lohas: the three lohas, to which vaṅga (tin) and nāga (lead) are added (22.11); the eight lohas: the five lohas, to which kānta, muṇḍaka and tīkṣṇaka (varieties of iron) are added (22.14). The eight mahārasas are: darada, pārada, sasya, vaikrānta, kānta, abhraka, mākṣika, and vimala (22.15). The eight uparasas are: khecara, añjana, kaṅkuṣṭha, gandha, āla, gairika, kṣiti, and śaileyāñjana (22.16). The sāmānyarasas (= sādhāraṇarasas) are: kampilla, gaurī, capala, kaparda, śaila, sindūraka, vahnijāra, and bodaraśṛṅga (22.17). The ten kinds of kṣāra derive from śigru, mūlaka, palāśa, cukrikā, citraka, ārdraka, nimba, ikṣu, śaikharika,[714] and mocikā (22.18).

The author

The author introduces himself as Narahari, Narasiṃha, Nṛhari and Nṛsiṃha,[715] son of Īśvara.[716] He was a resident of Kaśmīr,[717] of royal blood,[718] and took part in warlike activities.[719] His favourite deities were Śiva and Pārvatī.[720] Additional, but questionable,[721] information is found in the colophons of some MSS.[722] This information is as follows: Narahari was the son of Īśvarasūri,[723] a physician who was also called Caṇḍeśvara,[724] and the disciple of Amṛteśānanda[725] who belonged to the śiṣyaparamparā of Somānanda;[726] he was a resident of Siṃhapura in Kaśmīr.[727]

Narahari is sometimes credited with two more medical works, the *Guṇasārasamuccaya* and the *Vāgbhaṭamaṇḍana*.[728] The latter is by a different Narahari.[729]

Date

The terminus post quem of the *Rājanighaṇṭu* can be deduced from the sources mentioned by the author. The latest of these sources being the *Madanapālanighaṇṭu*, composed in 1375, the *Rājanighaṇṭu* cannot be earlier than the fifteenth century.[730] The terminus ante quem is provided by quotations in two works dating from the seventeenth century, Bhānuji Dīkṣita's commentary on the *Amarakoṣa* (first half of the seventeenth century)[731] and Raghunātha's *Bhojanakutūhala*.

The evidence collected by P.V. Sharma[732] in order to establish that the *Rājanighaṇṭu* is posterior to the *Bhāvaprakāśanighaṇṭu* and may date from the seventeenth century is invalid in my view. His first argument, the description of the plant called pītakaravīra[733] by the author of the *Rājanighaṇṭu* (karavīrādi 16), while the plant is absent from Bhāvamiśra's work, can be discarded because this plant was already known to Kaiyadeva.[734] His second argument, the presence of kulañja(na)[735] in the *Rājanighaṇṭu* (pippalyādi 55), known as ugragandhā sugandhā to Bhāvamiśra (harītakyādivarga 105), does not carry much weight, since kuliñja(na), a synonym of kulañja(na), was already prescribed by Śārṅgadhara in his *Triśatī* (168) and Soḍhala in his *Gadanigraha* (lehādhikāra 342).[736] His third argument, the presence in the *Rājanighaṇṭu* of a series of drugs, such as kālāñjanī (śatāhvādi 186–187),[737] kāmavṛddhi (śatāhvādi 196–197), karpūrataila (kṣīrādi 125) and sarvakṣāra (pippalyādi 257–258), whereas these are not described in the *Bhāvaprakāśanighaṇṭu*, is inconclusive, because the *Rājanighaṇṭu* contains a large number of medicinal substances which are not found in any other nighaṇṭu. His fourth argument, the description of jhaṇḍū (parpaṭādi 141),[738] may be important as a clue to the date of the *Rājanighaṇṭu*, provided that P.V. Sharma is right in his identification and his claim that it was introduced into India at the end of the sixteenth century.[739] The same applies to the plant called himāvali (pippalyādi 245–246), but only if it is actually the same as the dvīpāntaravacā of the *Bhāvaprakāśanighaṇṭu* (harītakyādivarga 107–108), i.e., cobacīnī or sarsaparilla, as suggested by P.V. Sharma.[740]

P. Hymavathi[741] developed his own views regarding the date of the author of the *Rājanighaṇṭu*, basing himself on the (erroneous) conviction that he was a disciple of Śrīkaṇṭhapaṇḍita, the śuddha Śaiva and medical author. He asserts that Narahari

or Narasiṃha hailed from a brāhmaṇa family adhering to the Kaśmīr school of Śaivism, which was introduced in the southern part of India after the establishment of Mohammedan rule in the North.[742] The date of Śrīkaṇṭha (A.D. 1300-1360) and the fact that the *Rājanighaṇṭu* is later than the *Madanapālanighaṇṭu* made him conclude that the former work must have been written shortly after the latter, towards the end of the fourteenth century. P. Hymavathi identifies Narahari's patron as Narasiṃha IV, who ruled in Kaliṅga between A.D. 1378 and 1409.

The evidence available, however, points to the fifteenth or sixteenth century as the period of composition of the *Rājanighaṇṭu*. The identity of jhaṇḍū and himāvalī, and the date of their introduction into India, may prove to be clues enabling us to narrow the limits.

Narasiṃhaśāstrin

Narasiṃhaśāstrin wrote, probably in the period A.D. 1500–1570, the *Vaidyasārasaṃgraha*.[743] The work begins with nāḍī- and mūtraparīkṣā.[744]

Nayanasukha

Nayanasukha, a Jaina monk, son of Keśavadāsa,[745] wrote a *Vaidyamanotsava* in Hindī verse.[746] This treatise, consisting of about 320 verses, arranged in seven chapters, is said to have been influenced by Lolimbarāja's *Vaidyajīvana*.[747] It is referred to as a source in Vidyāpati's *Cikitsāñjana*.

The *Vaidyamanotsava* was completed at Sīhananda or Siṃhacanda in A.D. 1592, as indicated by the author himself.[748]

The *Paraśurāmapratāpa*

The *Paraśurāmapratāpa*,[749] a huge work of an encyclopaedic character on dharmaśāstra in sixteen sections (kāṇḍa), contains some matter of medical interest. The āhnikakāṇḍa gives a long extract, called pākādhyāya, from a work on pākaśāstra ascribed to Suṣeṇa,[750] some information on aphrodisiac medicines, and a detailed account of manufacturing various scents. The saṃskārakāṇḍa contains the whole of the first part of the *Śiśurakṣāratna* by Pṛthvīmalla, and the text of a treatise called *Bālakarakṣā* or *Bālarakṣikā* by Karuṇāprāṇanātha.[751]

The authorship of the *Paraśurāmapratāpa* is ascribed to Pratāpanṛpati or -rāja, one of the sons of Padmanābhi, son of Lakṣmīdhara. Pratāparāja, who was a devotee of Paraśurāma, was patronized by Nizām Shāh of Ahmadnagar, identified as Burhān Nizām Shāh (A.D. 1509–1553)[752] of the Nizām Shāhī dynasty by P.K. Gode, who places Pratāparāja between 1531 and 1550.[753] The real author of the work under discussion was probably Kūrmasūri, the teacher of Pratāparāja. This Kūrmasūri must have been a scholar of wide learning, as is apparent from the large number of works from which he quotes. Interesting from a medical point of view are the quotations from *Haramekhalā*, Śālihotra, Śārṅga(dhara), and *Vṛddhavāgbhaṭa*.

Pratāparudradeva

Pratāparudradeva was the author of the *Kautukacintāmaṇi*, a work in 1,656 verses, arranged in three sections (dīpti), on different subjects, including magic.[754]

Some of the subjects are: ātmaśarīrarakṣā,[755] dṛṣṭibandha, khaḍgastambhana,[756] agnistambhana, annapākastambhana, gṛhadāhastambhana,[757] jalastambhana, vayovīryādistambhana, (rāja-, strī-, pati-, gajādi)vaśīkaraṇa,[758] kṛtrimavastukaraṇa[759] (muktā-, padmarāga-, indranīlakaraṇa, etc., karpūrakaraṇa, etc.).[760]

The section on royal entertainments (vinoda) contains formulae for the preparation of various kinds of fireworks.[761]

A *Kautukacintāmaṇi* is one of the sources of Basava's *Śivatattvaratnākara*.

The treatise dates from about 1520.[762]

Pratāparudra, the king of Orissa who was renowned as a patron of Sanskrit literature, is credited with the *Kautukacintāmaṇi*. This king of the Gajapati dynasty, who was a contemporary of Caitanya and was greatly influenced by his teaching, ruled from A.D. 1497 to 1539.[763]

Rāmakṛṣṇa Vaidyarāja

Rāmakṛṣṇa Vaidyarāja wrote a *Kanakasiṃhaprakāśa* under the patronage of Kanakasiṃha of Bagesara in Bihār, a descendant of Jaitrasiṃha of the Gauravaṃśa.[764] The work dates from the sixteenth century.[765]

Sādhukīrti

Sādhukīrti, a pupil of Jinasāgara of the Kharataragaccha, was the author of the *Śeṣasaṃgrahanāmamālā*, a supplement in about 1,500 ślokas to Hemacandra's *Abhidhānacintāmaṇi*. The bulk of the work is devoted to the names of trees, shrubs, etc.[766]

Sajjana

Sajjana wrote in 1585 the *Sūktāmṛtapunaruktopadaṃśadaśana*, a very brief treatise on medicine in forty-five verses, preceded by two introductory and nine preliminary verses. The author's name and the title of the work are mentioned at the end. An alternative title is *Vaidyavidyāvilāsa*.[767]

Śrīśailanātha

Śrīśailanātha, son of Avadhānasarasvatī, grandson and pupil of Kāmeśanātha, great-grandson of Ekāmranātha, wrote his *Praśnottararatnamālā*[768] under the patronage of Veṅkaṭādrivibhu,[769] a king of the Vijayanagar empire. If this king is Veṅkaṭādri or Veṅkaṭa I, who was the son of Acyuta Rāya, and who, after the death of his father in 1541 or 1542, ascended the throne and reigned for about six months only,[770] Śrīśailanātha belongs to the sixteenth century.[771]

The *Praśnottararatnamālā* is quoted in Caturbhuja's commentary on the *Rasahṛdayatantra*.

Śubhacandra

Śubhacandra was the author of the *Jīvakacarita*[772] or *-tantra*, dealing with the life of Jīvaka, the famous physician of Buddhist literature. The work is assigned to the sixteenth century.[773] It is referred to in another work of the same author, the *Bṛhatpāṇḍavapurāṇa*.[774]

Ṭoḍaramalla

Ṭoḍaramalla, Akbar's finance minister, engaged a number of scholars of Benares to compile an encyclopaedic work. This huge encyclopaedia, the *Ṭoḍarānanda*, consists of twenty-two sections (saukhya),[775] the last of which, the *Āyurvedasaukhya*,[776] is concerned with medicine.

Contents

The *Āyurvedasaukhya* is arranged in ninety-seven chapters (harṣa).[777] Their order has been re-arranged in the edition.

Volume I contains the larger part of chapter eight[778] (chapters 1–29 of the edition), chapter twelve (chapter 30 of the edition), and chapters eighty-four to ninety-one (chapters 31–38 of the edition), all dealing with materia medica.

The subjects of volume I are: (1) the basic concepts of pharmacology (rasa, guṇa, vīrya, vipāka, prabhāva); (2) the medicinal properties of drugs (metals, minerals and gems included); (3) salts and caustics; (4) the sugarcane and its products; (5) honey; (6–9) milk and other dairy produce; (10) oils; (11) alcoholic drinks; (12) vinegar (śukta); (13) urine; (14) water; (15–16) grain and pulse; (17) meat; (18) fish; (19) fruits; (20) vegetables; (21) the best (śreṣṭha) among various articles of diet; (22) the properties and actions of the six tastes; (23–27) prepared foods; (28) anupāna; (29) substitutes for drugs (anukalya); (30) groups of drugs (gaṇoddeśa); (31–35) synonyms of drugs (abhayādi), spices (supādika), fragrant substances (karpūrādi), metals, minerals, gems, etc. (suvarṇādi), and trees (vanaspativarga); (36) names and properties of fruits (phalavarga); (37) names of vegetables and their synonyms (śākavarga); (38) names and properties of prepared foods.

These chapters on materia medica have rather carelessly been compiled[779] from various sources without making them into a coherent whole. This explains that (a) subjects have been dealt with twice,[780] (b) two separate chapters are devoted to various fruits[781] and prepared foods,[782] (c) properties of drugs are described while the synonyms of these drugs have been omitted,[783] (d) synonyms are given of substances which are absent from the chapters which are concerned with the medicinal properties of drugs,[784] and (e) the order of the drugs dealt with in chapter two does not agree at all with that of the synonyms in chapters thirty-one to thirty-four.

In contrast with other parts of the *Āyurvedasaukhya*, the chapters on materia

medica contain few references to the sources. Those mentioned in the text are:[785] *Ārogyacintāmaṇi* (30.44–48),[786] Caraka, (Tīsaṭa's) *Cikitsākalikā* (30.96), Dhūrjaṭi (30.107–108), *Dravyaguṇaratnamālā* (1.5),[787] Jayyaṭa (6.36), Kṛṣṇātreya (30.151–152), Parāśara (2.44), Suśruta, Vāgbhaṭa, and *Vṛddhasuśruta* (14.58–60). A major source, the *Mādhavadravyaguṇa*,[788] was, however, left unmentioned. The many verses, common to the chapters on materia medica of the *Āyurvedasaukhya* and the *Bhāvaprakāśanighaṇṭu*,[789] can be seen as a result of borrowing,[790] indebtedness to a common source, or the collaboration of Bhāvamiśra in the compilation of the *Āyurvedasaukhya*.[791] The verses which are also found in the *Āyurvedaprakāśa*[792] derive from a common source or have been borrowed from the *Āyurvedasaukhya* since the latter is anterior to the former.

A major source that went unnoticed so far is the *Madanapālanighaṇṭu*, put to use extensively in chapters 31–38, while verses common to *Āyurvedasaukhya* and *Soḍhalanighaṇṭu* are found in chapter twenty.[793] Almost the whole of chapter twenty-nine on substitutes is strikingly similar to the verses on this subject in Vaṅgasena's *Cikitsāsārasaṃgraha* (dravyaguṇādhikāra 65–88). Finally, Cakrapāṇidatta's *Dravyaguṇasaṃgraha* may also have been utilized by the compilers of the *Āyurvedasaukhya*.[794]

Volume II contains the first six chapters of the *Āyurvedasaukhya*, which are concerned with the basic principles of āyurveda and allied topics. After some introductory verses (1–8), chapter one deals with the aims of āyurveda and its definition (9–13ab), the eight branches of āyurveda (13cd–40), the four limbs of treatment (41–45), the characteristics of a physician (48–92), the various kinds of diseases (93–126), the modes of examination of a patient (127–149), and the classification of diseases (150–168). Chapter two is about the doṣas (2–132), decrease of the tissues (dhātu), impurities (mala), etc. (133–163), remedial measures in general (164–174), the types of country and soil (175–202), and the constitutions, together with the character types (203–229). Chapter three is concerned with the five elements (mahābhūta) and the mahābhautika composition of drugs (2–20ab), various types of drug action (20cd–65), the tastes (66–80), vīrya (81–87), guṇa (88–93), vipāka (94–109), prabhāva (110–115), the divisions of time and the regimen for the various seasons (116–235), pollution of land, water and air (236–250), epidemic diseases (251–261), the regimen for day and night (262–355), and the examination of the age, strength, and sātmya of a patient (356–411). Chapter four treats of the fires in the human body, the digestive processes (10–40), the tissues (dhātu) and their metabolism (41–62), the physiology of the generative organs, conception, embryology, pregnancy, and allied subjects (63–221), anatomy (222–295), the marmans (296–346), death, health, and general lines of treatment (347–361). Chapter five is devoted to prognostics (omina, ariṣṭas, dreams, etc.). The subjects of chapter six are the examination of the pulse (2–25), urine (26–69), faeces (70–86), eyes (87–94), tongue (95–101), teeth (102–108), and the prediction of the date of death (120–160).

Sources and authorities referred to are: Agniveśa,[795] Ātreya,[796] Atri,[797] Aupadhenava,[798] Bhāluki,[799] Bhāradvāja,[800] Bhoja,[801] Cakṣuṣya,[802] Candraṭa,[803] Caraka,[804] Carpaṭi, *Cikitsākalikā*,[805] *Cikitsāsārasaṃgraha*,[806] Ḍalhaṇa,[807] Garga, Gopura, Hariścandra,[808] Hārīta,[809] Jejjaṭa,[810] Kharanāda,[811] Kṛṣṇātreya,[812] Kṣemendra,[813]

Mārkaṇḍeyapurāṇa, Nāgārjuna,[814] *Narapaticaryā*,[815] *Padmapurāṇa*, Pārāśara,[816] *Prayogapārijāta*,[817] *Rasārṇava*,[818] *Ratnākara*, *Rudrāgama*,[819] *Rudrakautuka*,[820] *Rudratantra*,[821] *Sarvāṅgasundara*,[822] Śaunaka,[823] *Śivāgama*,[824] *Śrīnivāsasaṃhitā*,[825] Suśruta,[826] Tīsaṭa,[827] Vāgbhaṭa,[828] *Vaidyaka*,[829] *Vaikhānasa*,[830] *Vaiṣṇavāgama*,[831] *Vaiśvānara*,[832] Vaśiṣṭha, Vāsudeva,[833] Videha,[834] Vīrabhadra,[835] *Vivekamārtaṇḍa*,[836] *Vṛddhabhoja*, *Vṛddhahārīta*, *Vṛddhātreya*, *Vṛddhavāgbhaṭa*, *Yogapradīpa*,[837] *Yogaratnāvalī*,[838] and *Yogaśarīra*.[839]

Sources left unmentioned may be Bhoja's *Cārucaryā*,[840] Kaṇāda's *Nāḍīvijñāna*,[841] and Rāvaṇa's *Nāḍīparīkṣā*.[842] Some verses from the *Yogaśataka* are not indicated as such (2.97) or even said to derive from the *Cikitsākalikā* (2.76 and 78–81).

Volume III contains four chapters (chapters thirteen to sixteen of the *Āyurvedasaukhya*). Chapter one deals with the five ways of diagnosing a disease (nidāna, pūrvarūpa, rūpa, upaśaya and saṃprāpti) and quotes the verses relevant to this subject from the *Aṣṭāṅgahṛdayasaṃhitā*, adding comments in prose from an unknown source.[843] It also gives examples of the various types of therapeutic diagnosis (upaśaya)[844] and some verses on diseases acting as a causative factor for another disease.[845] Chapter two is about the six ways of treatment (laṅghana, bṛṃhaṇa, stambhana, sneha, sveda and rūkṣaṇa) and chapter three about fever and the general lines of its therapy. Chapter four is concerned with the symptoms and therapy of particular types of fever: navajvara (1–6), āma- and nirāmajvara (7–25), antarvega- and bahirvegajvara (26–27), the doṣic types (35–256), fourteen saṃnipāta fevers (257–691), āgantu fevers (692–738), irregular fevers (viṣamajvara; 739–1069), relapsing fevers (punarāvartakajvara; 1070–1079), fevers located in the dhātus (1080–1095), chronic fevers (jīrṇajvara; 1103–1289); recipes for inducing sleep and rules pertaining to sleep (1290–1327) are followed by verses on the fever caused by alcoholic drinks (1349–1356), a fever occurring in regions situated at the foot of mountains (aupatyakajvara; 1357–1359), fevers caused by polluted water (1360–1371), and a series of fevers called raudrajvara, māhendrajvara, jvareśvara, kālajvara and gambhīrajvara (1373–1381); the chapter ends with verses on some miscellaneous subjects connected with fever.

Volume IV contains nine chapters (chapters seventeen to twenty-five of the *Āyurvedasaukhya*), dealing with the symptoms and treatment of (1) atisāra (diarrhoea), (2) saṃgrahaṇī (sprue), (3) arśas (haemorrhoids), (4) agnimāndya (sluggishness of the digestive fire), (5) kṛmi (worms), (6) pāṇḍuroga (morbid pallor and jaundice), (7) raktapitta (haemorrhagic disorders), (8) rājayakṣman (consumptive disorders), and (9) kāsa (cough).

Volume V has fourteen chapters (chapters twenty-six to thirty-nine of the *Āyurvedasaukhya*), dealing with the symptoms and treatment of (1) hikkā (hiccup) and śvāsa (respiratory disorders), (2) svarabheda (disorders of the voice), (3) arocaka (anorexia), (4) chardi (vomiting), (5) tṛṣṇā (thirst), (6) mūrchā (fainting), bhrama (giddiness), nidrā (sleep), tandrā (drowsiness) and saṃnyāsa (loss of consciousness), (7) pānātyaya, paramada, pānājīrṇa and pānavibhrama (alcoholic disorders), (8) dāha (burning syndrome), (9) unmāda (insanity) and bhūtonmāda (possession by evil spirits), (10) apasmāra (epilepsy), (11) vātavyādhi (wind diseases), (12) vātaśoṇita (gout), (13) ūrustambha (stiffness of the thighs), and (14) āmavāta (rheumatic disorders).

Volume VI has eighteen chapters (chapters thirty-six and thirty-eight to fifty-three of the *Āyurvedasaukhya*),[846] dealing with the symptoms and treatment of (1) śūla (piercing pain), (2) pariṇāmaśūla (piercing pain appearing during digestion) and annadravaśūla (piercing pain appearing without any connection with the digestive process), (3) udāvarta (a group of disorders caused by the suppression of natural urges) and ānāha (obstructive abdominal swelling), (4) gulma (visceral swelling), (5) hṛdroga (heart diseases), (6) urograha (a disease characterized by swelling of liver and spleen and pain in the lateral parts of the abdomen) and mūtrakṛcchra (dysuria), (7) mūtrāghāta (urinary obstruction), (8) aśmarī (stones in the urinary tract), (9) prameha (urinary disorders) and pramehapiḍakā (pustules as sequelae of prameha), (10) medoroga (obesity), (11) kṛśaroga (emaciation), (12) udara (abdominal swelling), (13) śotha (localized swelling), (14) vṛddhi (scrotal swelling), (15) galagaṇḍa (goitre), gaṇḍamālā (lymphadenopathy), apacī (chronically suppurating lymph nodes), granthi (small tumour), arbuda (large tumour), (16) ślīpada (filariasis), (17) vidradhi (abscesses), (18) vraṇa (ulcers and wounds; burns, fractures and dislocations are included).

Volume VII consists of seventeen chapters (chapters fifty-four to seventy of the *Āyurvedasaukhya*), dealing with the symptoms and treatment of (1) nāḍīvraṇa (sinuses), (2) bhagandara (anal fistulas), (3) upadaṃśa (venereal diseases in the male), (4) śūkadoṣa (affections of the male member), (5) kuṣṭha (a number of skin diseases), (6) śītapitta, udarda, koṭha (forms of urticaria), (7) amlapitta (disorders of the stomach), (8) visarpa (erysipelas), (9) visphoṭa (vesicular eruptions), (10) snāyuka (dracontiasis), (11) masūrikā (smallpox and some other diseases), (12) kṣudraroga, (13) mukharoga (diseases of mouth and throat), (14) karṇaroga (diseases of the ears), (15) nāsāroga (diseases of the nose), (16) netraroga (eye diseases), (17) śiroroga (diseases of the head).

Volume VIII consists of sixteen chapters (chapters seventy-one to eighty-three and part of chapter eight of the *Āyurvedasaukhya*),[847] dealing with (1) asṛgdara (menorrhagia), somaroga and mūtrātisāra, (2) yonivyāpad (diseases of the female genital tract) and yonikanda (prolapse of the uterus), (3) mūḍhagarbha (malpositions), (4) sūtikāroga (puerperal diseases), (5) stanaroga (breast diseases), (6) stanyaduṣṭi (polluted breast-milk), (7) bālaroga (children's diseases), (8) viṣa (disorders due to poisons), (9) rasāyana, (10) vājīkaraṇa, (11) sneha (oleation), (12) sveda, nasya, dhūmapāna, gaṇḍūṣa, kavala, pratisāraṇa, (13) vamana and virecana (emetics and purgatives), (14) basti (enemas), (15) uttarabasti (urethral and vaginal douches), (16) śoṇitasrāva (bloodletting).

Volume IX consists of four chapters (chapters seven, nine, ten and eleven of the *Āyurvedasaukhya*), dealing with (1) parimāṇa (weights and measures) and paribhāṣā (technical terms), (2) rasādiśodhanamāraṇa (the purification and killing of mercury, etc.), (3) lohopalohaśodhanamāraṇaguṇāguṇasaṃnipātādau viśeṣadhātumāraṇamalaharaṇasphuṭitadhātumṛdukaraṇa (the purification and killing of the lohas and upalohas, etc.), (4) rasoparasamahārasamaṇiratnaśodhanamāraṇasattvapātanasattvamāraṇadrutikaraṇaguṇāguṇaviṣalakṣaṇadivyauṣadhādilakṣaṇavahnilakṣaṇatailapātanakathana (the purification and killing of the rasas, uparasas, mahārasas, maṇis and ratnas, the extraction and killing of essences, etc.).

Chapter one is subdivided into a number of sections: parimāṇa (1.2–95), auṣadhaparibhāṣā (1.96–116), and kalpanāparibhāṣā (1.117–571). Many subjects are dealt with in all three sections, but the third one is particularly rich.

The section on kalpanāparibhāṣā discusses: the types of pharmaceutical preparations: niryāsa (= svarasa), kalka, niryūha (= kvātha), śīta(kaṣāya), phāṇṭa, rasakriyā (inspissated extract), saṃdhāna (fermented fluids), guṭikā, cūrṇa, sneha, and kalpa (1.117); svarasa (1.118–119); kvātha (decoction) (1.120–121); a substitute for svarasa (1.122); the preparation of svarasa (1.123–126); kalka (1.127–128); śīta(kaṣāya) or hima (1.129–132); phāṇṭa (1.133–136); mantha (1.137); pramathyā (1.138); doses (1.140–143); the quantities of water to be used in preparing a decoction (kvātha) (1.144–150); five types of pharmaceutical preparation: cūrṇa, kaṣāya, śiśira and śṛta phāṇṭa, kalka, svarasa (1.151); the preparation of a decoction (1.152); the seven types of decoction: pācana, dīpana, śodhana, śamana, tarpaṇa, kledana, and śoṣaṇa (1.153); the actions of these types (1.154–155); emetics may be used to counteract the adverse effects of a kledin or viśoṣin decoction (1.156); rules for the preparation of the seven types (1.157–158); indications (1.159–161); copper vessels are unsuitable to the preparation of a decoction (1.162–163); decoctions should never be boiled again (1.164–165); fresh and old drugs should never be mixed (1.166); signs indicating that a decoction is well prepared and useful (1.167); complaints arising after taking a decoction should be treated with an emetic (1.168); (pra)kṣepas, also called āvāpas; rules concerning their employment (1.169–180); pratīvāpa, niṣeka and abhiṣeka, i.e., substances to be added when melting metals, etc. (1.181–183); doses; ratios of ingredients in various types of preparation (1.184–198); definitions of a niryūha and a maṇḍa (1.199); the preparation of anna, a peyā, vilepī, yavāgū, maṇḍa, yūṣa (1.200–202); rules for the preparation of yūṣa and rasa (1.203–206); the preparation of māṃsarasa (broth) for use in a yavāgū (1.207); the preparation of kṛta- and akṛtayūṣa (1.208–211); cūrṇas (1.212–215); guṭikās (1.216–219); the preparation of a rasakriyā; its dose (1.220); the preparation of an (ava)leha (1.221–222); signs indicating proper guḍapāka (i.e., the preparation of a leha containing guḍa) (1.223–225); the sign indicating that a rasakriyā, leha or guḍa has been properly prepared (1.226); the process of puṭapāka (1.227–230); the process of bhāvanā (1.231–232); the five defects that may occur in a medicine (1.233).

The chapter proceeds with discussing: śilājatu (1.234–252); guggulu (1.253); taṇḍulodaka (1.254); muṣṭiyoga (1.255); phalavarti (1.256–258); kṣīrapāka (1.259); vajrakāñjika (1.260); pralepa and pradeha (1.261–273); upanāha (1.274–275); śirolepa (1.276); the preparation of errhines and their doses (1.277–280); mouth washes (kavala) and gargles (gaṇḍūṣa) (1.281–283); pratisāraṇa (1.284–285); caustics (kṣāra) (1.286–292); āsavas (1.293–298); ariṣṭas (1.299–300);[848] enhancement of the efficacy of āsavas and ariṣṭas (1.301); the preparation of a bhakta (1.302); rules concerning āsavas and ariṣṭas (1.303–306); doses of āsava and ariṣṭa (1.307–308); alcoholic preparations (1.309–324); the preparation of various kinds of cukra, also called śukta (1.325–327); kāñjika (1.328); tuṣāmbu (1.329); sauvīraka (1.330–331); the duration of the process of fermentation, dependent on the season (1.332); uṣṇodaka (1.333); the periods of time for the application of an añjana (1.334); the three types of añjana and the sizes of the varti (1.335); a rasakriyā used as an añjana; its dose

(1.336); types of añjana and their preparation (1.337–339); the rod (śalākā) for the application of an añjana; the materials that may be used (1.340–341); the technique of application (1.342–343); a rule for particular inorganic substances used in an añjana (1.344); the storage of añjanas (1.345); measures for the treatment of eye diseases: seka (sprinkling a fluid), āścyotana (eyedrops), piṇḍī (the application of a paste and tying a bandage over it), viḍāla (the external application of a paste), tarpaṇa (the application of drugs thought to be nourishing), puṭapāka, and añjana (1.346); the technique of application, indications, doses, etc., with respect to seka (1.347–348), āścyotana (1.349–351), piṇḍī (1.352), viḍāla (1.353), netrabasti (= tarpaṇa) (1.354–365); the four types of mūrdhataila (application of oil on the head): abhyaṅga (massage with oil), pariṣeka (sprinkling), picu (application of a cotton swab soaked in oil), and śirobasti (application of a cap filled with oil) (1.366);[849] the duration of these treatments (1.367); picu (1.368); śirobasti (1.369–373);[850] the definition of a mātrā (unit of time for measuring the duration of basti, etc.) (1.374); the definition of the bath called avagāha or magna (1.375); the number of mātrās required for diffusion of an oil into various constituents of the body (1.376–378); pādābhyaṅga (massage of the soles of the feet with oil) (1.379–380); karṇapūraṇa (filling the ears with oil) (1.381); abhyaṅga of nails and navel (1.382); abhyaṅga in general (body massage with a fatty substance) (1.383–387); the technique of karṇapūraṇa and the periods of time suitable to it (1.388–390); the preparation of lākṣārasa (1.391–392); rules for the preparation of medicated ghees, oils and linctuses (1.393–410);[851] rules for the preparation of a medicated oil containing guggulu (1.411); rules for the preparation of a medicated oil containing milk (kṣīrapāka) (1.412) and particular other fluids (1.413–414); various other rules pertaining to the preparation of medicated oils (1.415–429); the signs indicating proper preparation (1.430); two types of preparing a medicated oil or ghee: mandacikkaṇa and kharacikkaṇa (1.431); three of these types: mṛdu, madhya and khara; their characteristics (1.432) and indications (1.433); madhyamapāka is the most useful type (1.434); the signs of proper preparation according to two authorities (1.435–436); more specifications regarding the preparation of medicated oils and ghees (1.437–444).

The next section of chapter one is concerned with: the period of time for beginning the processing of mercury (1.445); the quantity of mercury to be taken (1.446); the quantities of a series of other inorganic substances (1.447–450); the mentioned rules ought to be observed (1.451); a sattva can be extracted from mica and other substances when properly processed (1.452); the production of a kajjalī (1.453);[852] the production of the substance called umāyoni (1.454); the characteristics of purified copper (1.455); definitions of utthāpana and kṣālana (1.456), abhiṣeka (1.457); the production of dhauta (purified excrements of earthworms) (1.458); properties of the bhasman of mercury when prepared with vegetable substances (1.459); the doses of the bhasman of mercury for human beings, horses and elephants (1.460); the doses of this bhasman dependent on the method of its preparation, the indications for these varieties, and particularities regarding its administration (1.461–467); the addition of poisonous substances to the bhasman of mercury, dependent on the country of residence (1.468–471); the gradual increase of the doses; doses in different conditions (1.472–475); indications for the use

of a particular type of poison (1.476–477); the characteristics of brāhmaṇa, kṣatriya, vaiśya and śūdra poisons (1.478); general restrictions and indications for the use of poisons (1.479–480), followed by contra-indications (1.481).

The last section deals with: substitutes for medicinal substances that are difficult to procure (1.482–493); fruits to be used in a dried condition (1.494–495); rules regarding the physician's share of the drugs to be employed in a treatment; two types of share are described, called dhanvantaribhāga or aśvinīkumārabhāga and rudrabhāga or rudrāṃśa (1.496–501);[853] a schedule for dosages in children (1.502–504); the preparation of a paste to be used in the pātana of mercury (1.505–506); jāraṇa of mercury (1.507–524); rules for the use of the bhasman of gold (1.525–529); the preparation of lohas, their doses, the course of treatment, their therapeutic effects, etc. (1.530–556); the preparation of bījas (1.557–561); two definitions of an āroṭa (1.562–563); the five substances collectively called pañcamṛttikā (1.564); the description of the khalvayantra (mortar) and the peśya (pestle) (1.565–567);[854] the use of the khalva (1.568);[855] the round (vartula) khalva (1.569);[856] the taptakhalva, made of iron (1.570).

The chapter ends with the instruction to teach the paribhāṣās to a worthy student, one's own son, or brāhmaṇas only (1.571).

The first part of chapter two is about: rasavidyā as a science to be kept as secret as a mother's genitals (2.1); a prayer to the lord of mercury, Sūtarāja (2.2–3); the synonyms of mercury, which are the same as those of Śiva (1.4); the seven kañcukas: mṛnmaya-, pāṣāṇa-, jalajakañcuka, two kañcukas due to the presence of lead (nāga) and two due to tin (vaṅga) (2.5); their characteristic effects on mercury (2.6); the five doṣas: mala-, vahni-, bhū-, unmatta-, and śailadoṣa (2.7); the adverse effects of pṛthivīkañcuka (= bhūdoṣa), pāṣāṇadoṣa, vāridoṣa (= jalajakañcuka), kapālikā,[857] śyāmā,[858] kālī,[859] and kāpālī[860] (2.8–11); the adverse effects of mala-, vahni-, viṣa-, bhū-, darpa-, and unmattadoṣa (2.12); the kañcukas and doṣas should be removed for the purpose of making a bhasman; otherwise, one would incur the sin of brāhmaṇa murder (brahmahatyā) (2.13); characteristics and adverse effects of vaṅga-, āra-, nāga-, and rasakampadoṣa (2.14–19); removal of the doṣas (2.20–26); svedana of mercury (2.27–41); mardana (2.42–43); mūrchana (2.44–49); utthāpana (2.50); pātana (2.51–53); the production of a naṣṭapiṣṭa (2.54); the use of the taptakhalva (2.55); removal of lead and tin by means of pātana (2.56); the preparation of a piṣṭī (2.57); adhaḥpātana (2.58–61); ūrdhvapātana (2.62–65); tiryakpātana (2.66–68); two descriptions of the kacchapayantra (2.69–76); the tulāyantra (2.77–79); bodhana or rodhana (2.80–83); niyamana (2.84–86); dīpana (2.87–90); a summary of the functions of the first eight saṃskāras, described in the foregoing (2.91–99); sulphur (gandha) is the rajas, mica (abhraka) the śukra of Pārvatī; both can embrace (combine with) mercury, which is the śukra of Śiva; this combination makes mercury suitable to the killing process without suffering injury (2.100–101); the jāraṇa of mercury with sulphur (2.102); mica is the tejas of Gaurī; its properties and actions; the combination of mercury with mica makes the former capable of inducing transmutation (vedha) (2.103–104); the gaurīyantra and its use in the jāraṇā of mercury with sulphur (2.105–112); not any amount of mercury or sulphur may be lost in the process (2.113–114); the vajramūṣā and its use (2.115–118); the paste (lepa) used for sealing the joints of crucibles (2.119); two ways of making a vajramūṣā (2.120–122);

glass bottles (kācakūpī) and iron vessels (lohakūpī), their lenghths, and other details (2.123); another recipe for the preparation of a paste for sealing the joints of crucibles (2.124–125); the pakvamūṣā and its function (2.126); the mallamūṣā (2.127–128); a mūṣā for the purification of silver (2.129); the making of a nigaḍayantra; its function (2. 130–132); another recipe for making this yantra; the process called nigaḍabandha, to be carried out by means of it (2.133–136); useful types of clay (mṛd) (2.137); a recipe for preparing a paste to be used in sealing joints of crucibles and for wrapping around glass bottles (2.138–140); jāraṇā will be described later (2.141); the description of a process imparting a red colour to mercury, making it heatresistant, enabling it to digest other substances, etc. (2.142–152); the preparation of a piṣṭī, to be used in the jāraṇā with sulphur (2.153–154); the process called jāraṇa (2.155–158); stimulation of the digestive power (jaraṇa) of mercury (2.159); mercury that can digest metals is called āroṭa; the product of transmutation can be made stable by adding a bīja (2.160); the three types of jāraṇā called nirmukha, sanmukha and vāsanāmukha; three other varieties are called bāla-, yauvana- and vṛddhajāraṇā; the effects of the last three varieties; viḍa should be added during jāraṇa (2.161–164); the preparation of mercury from cinnabar (hiṅgula); this mercury is free from the kañcukas and may be used in recipes (2.165);[861] the three types of hiṅgula (2.166);[862] their properties and uses (2.167–168); mercury extracted from cinnabar should also be purified (2.169); the properties and uses of haṃsapāda hiṅgula (2.170); the purification of hiṅgula (2.171); the properties and actions of hiṅgula (2.172).

The second part of chapter two deals with: the preparation of the bhasman of mercury, its use and its effects (2.173–191);[863] other methods of preparation (2. 192–195);[864] methods of preparing rasasindūra (2.196–200); methods of preparing rasakarpūra; its properties and effects (2.201–208); the preparation of hariṇakhurībaddharasa (2.209–215); another method of preparing rasasindūra; its use and effects (2.216–220); methods to prepare the bhasman of mercury (2.221–222); the preparation of a pāṇḍura bhasman that is useful in killing other metals (2.223–227); the preparation of a bhasman of mercury by means of several yantras (puṭayantra, bhairava- or somānalayantra, vālukāyantra); the recipe for a paste, called sarvatomukhamudrā, for sealing the joints; the wonderful and curative effects of a mixture of the bhasman and another powder; rules regarding the diet, etc., of persons taking this drug (2.228–256); another way of preparing a bhasman of mercury (2.257–259); the preparation of a bhasman with a golden hue (2.260) and the colour of saffron (2.261); the preparation of vaikrāntabaddhasūta, its use and its effects (2.262–272); the preparation of another bhasman with curative properties (2.273–276); a way of preparing rasasindūra (2.277–279); the process of killing mercury requires the addition of gold, etc.; mercury is considered to be mūrchita when it looks like a collyrium (2.280–281); the preparation of a nirvīrya- and savīryabhasman; the latter is therapeutically more potent (2.282–283); the preparation of rasaparpaṭī, particularly useful in treating children (2.284–285); the preparation of a patient for treatment with a bhasman of mercury; a bhasman of copper should be given first; the dose of bhasman of mercury should be gradually increased according to a particular schedule (2.286–287); rules for those using a bhasman of mercury; a group of eight vegetables, called kakārāṣṭaka,

may not be eaten; other dietary articles to be avoided; types of women to be avoided and women to be chosen as attendants; the type of woman called kākinī; intercourse with her frees from all diseases (2.288–300); intake of the bhasman of mercury leads to a heightened libido during the first three weeks; intercourse, however, should be avoided during this period, because it would result in śukrameha; after three weeks, pretty women may massage the body of the person using the bhasman, which will help in making the mercury permeate all the tissues; additional rules for the regimen during treatment; sexual intercourse would result in death (2.301–305); the symptoms occurring when the bhasman is not properly digested, and the treatment of this disorder, called rasājīrṇa (2.306–313); treatment of the effects caused by the intake of mercury, tainted by the association with lead (2.314) or tin (2.315); signs indicating the proper digestion of the bhasman (2.316); a description of hiṅgula (2.317–318); the effects of purified and killed mercury (2.319–321).

The third part of chapter two is about: the mythical origin of sulphur (gandhaka) (2.322); the four types of sulphur and their uses (2.323);[865] various methods for the purification of sulphur (2.324–334); the preparation of gandhakataila, to be used in recipes (2.335–337); the adverse effects of impure sulphur (2.338); two more ways of preparing gandhakataila, to be used in processing mercury and in recipes (2.339–342); the mythical origin of the metals, sulphur, and mica (2.343–344); sulphur and mica are similar to mercury in preventing (untimely) death (2.345); those desiring a healthy condition should offer their prayers to the sun, those striving after replenishment of their bodily constituents should pray to the moon, those wanting to be freed from disease should pray to the highest Devadeveśa (i.e., Śiva) (2.346); the mythical origin of mica (abhraka) (2.347); the four varieties of mica and their uses (2.348–349);[866] the effect of fire on the pināka type of mica; intake of its bhasman leads to mahākuṣṭha (2.350); the effect of fire on the dardura type; intake of this type may lead to bhagandara (2. 351); the effect of fire on the nāga type; its intake causes udara, prameha and impotency (2. 352); the vajra type remains stable under the influence of fire; it cures diseases and prevents decrepitude and death (2.353); a mythical story about the origin of the vajra type, explaining its name (2.354–356); the four types of mica: brāhmaṇa, kṣatriya, vaiśya and śūdra, white, red, yellow and black in colour respectively (2.357); the sattva of mica is responsible for its actions; mica, collected in the northern mountains, contains more sattva than that coming from the south; the black variety is the best for therapeutic purposes (2.358–359); the removal of the defect called giridoṣa (2.360); further purificatory procedures (2.361–365); the preparation of dhānyābhra, used in killing mica (2. 366); the adverse effects of impure mica and of mica that is not killed (2.367); various methods of preparing the bhasman from dhānyābhra (2.368–379); therapeutic effects of the bhasman (2.380); preparation of the bhasman in the andhamūṣā by means of one gajapuṭa (2.381); two other methods of preparing the bhasman (2.382–384); the amṛtīkaraṇa of mica (2.385–386); the effects of the bhasman (2.387–389); the dose and its gradual increase (2.390); two methods of extracting the sattva (2.391–394); the formula of kṣayāntakarasa and its curative actions (3.395–396); the therapeutic actions of the bhasman, dependent on the number of puṭas during its preparation (2.397); the bhasman of mica is called bīja after having been subjected to a hundred puṭas; this bīja leads to the formation of ojas and to beauty, and sustains the body (2.398); gold, silver, copper, iron of the tīkṣṇa type, tin (kuṭila), and lead (pannaga) are the six natural metals used in processing mercury (2.399). The last verse summarizes the contents of the chapter (2.400).

Chapter three deals with: the eight metals (loha), used for dehasiddhi: gold, silver, copper, lead, tin, kānta(loha), tīkṣṇa(loha), and muṇḍa(loha) (3.1); the three artificial (kṛtrima) metals: ghoṣa, rītikā and āvarta (3.2ab); maṇḍūra, the waste product (kiṭṭa) of muṇḍa, is called an upaloha (1.3.2cd); the excellent metal called sāmbūka (iron from meteorites), which is a product of lightning (vidyut), is called a mahāloha; it falls from the sky upon the earth, is rare, and may be obtained as a boon from Vetālas, etc. (3. 3–4ab); iron from the śālagrāma,[867] extremely rare (3.4cd); sphāṭika iron, extracted from sphaṭika found in Kaśmīr, is available in scanty amounts (3.4ef); the eight metals are, according to the *Nandikācāryatantra*: gold, silver, copper, lead, tin, kānta(loha), vidyujja(loha) (arising from lightning) and sphaṭikodbhūta (3.5);

the mythical origin of gold and its five types (3.6–8);[868] the relative merits of three kinds of gold, dependent on their colours (3.9);[869] the ten defects (doṣa) of gold; their presence makes it unsuitable to medicinal use (3.10); the adverse effects of impure gold (3.11); the purification of gold (3.12–13);[870] eight methods for the preparation of the bhasman of gold (3.14–37);[871] the storage of the bhasman (3.38); rules for its administration (3.39); metals are reduced to a bhasman by the smell of sulphur or mākṣika (3.40); the properties and actions of (the bhasman of) gold (3.41–45);

the three types of silver (3.46);[872] its mythical origin (3.47); characteristics which make silver unsuitable to use (3.48); characteristics of silver suitable to use (3.49); the purification of silver (3.50–51);[873] adverse effects of impure silver (3.52); four methods of preparing the bhasman (3.53–57); the properties and actions of the bhasman (3. 58–59);

the mythical origin of copper (3.60);[874] regions where good types of native copper are found (3.61); the properties and relative merits of copper from these regions (3.62–63); properties due to impurities; the defects (doṣa) of copper (3.64–65); methods of purification (3.66–67); the adverse effects of copper affected by the doṣa called kālikā (3.68); the removal of kālikā (3.69–71); the characteristics of copper free from kālikā (3.72); the purification of copper in the kavacīyantra (3.73–74); the actions of copper purified in this way (3.75–76); the preparation of the bhasman (3.77); its therapeutic actions (3.78); two other methods of preparing the bhasman; its therapeutic actions (3.79–83); a fourth method of preparing the bhasman (3.84–85); a method of making copper melt quickly (3.86); a fifth method of preparing the bhasman (3.87–88); two opinions concerning the composition of the group of substances called pañcāmṛta, used in the puṭa of the bhasman of copper (3.89–90); disorders caused by unprocessed (apakva) copper (3.91); only copper free from kālikā should be used in recipes (3.92); the therapeutic actions of copper preparations (3.93–95);[875]

the two types of tin[876] and their relative merits (3.96);[877] characteristics that make it suitable to use (3.97); the five defects of tin which make it unsuitable to use (3.98); the purification of tin; its actions in a purified and in an impure state (3.99–102); six methods of preparing the bhasman (3.103–115); diseases caused by unprocessed (pā-

kahīna) lead and tin (3.116); a seventh method of preparing the bhasman of tin (3.117); properties and actions of tin preparations (3.118–119);

the properties of suitable and unsuitable types of lead (3.120);[878] its purification (3.121–122a); six methods of preparing the bhasman (3.122b–131); the actions of the bhasman (3.132–136);

pittala (= rītikā) (brass)[879] and kāṃsya (= ghoṣa) are usually not regarded as very useful in medicine (3.137); the preparation of kāṃsya (bronze);[880] the best variety is that produced in Saurāṣṭra (3.138); the seven good (3.139) and bad (3.140) qualities of kāṃsya; kāṃsya may be purified and killed like copper (3.141); an adverse effect of impure kāṃsya (3.142); properties and actions of purified kāṃsya (3.143–144); the two types of pittalī (= pittala) and how to distinguish them (3.145–146); the characteristics of pittala of good quality (3.147); rītikā may be purified and killed like copper (3.148); the properties and actions of rītikā preparations (3.149);

the mythical origin of iron (3.150–152); the topics to be discussed[881] (3.153–154); the quantity of iron to be taken for processing (3.155); the preparation of a triphalā decoction for the nirvāpaṇa (immersion of a heated metal in a fluid) of iron (3.156); removal of the impurity called girimala (3.157–158); the origin of various types of iron from the body of the Daitya called Lomila, who was killed by the gods (3.159–162); iron is used as an aphrodisiac and in the treatment of vāta diseases (3.163); iron is of three main kinds:[882] muṇḍa,[883] tīkṣṇa[884] and kānta;[885] muṇḍa is of three varieties: mṛdu, kuṇḍa and kaṇḍāra;[886] tīkṣṇa is of six varieties: kharasāra,[887] hotāla, taḍāvaṭṭa,[888] ciḍa, kāntaloha and gajākhya; kānta is of four varieties: romaka, bhrāmaka, cumbaka and drāvaka (3.164–166ab);[889] the *Rasārṇava* distinguishes a fifth variety, called karṣaka (3.166cd);[890] iron originating from a particular mine (ākara) cures the diseases of the people living in the country where that mine is located (3.167); the two types of sāra (= sattva) of iron: audra[891] and kaliṅgaja; the characteristics of the bhasman of the kaliṅgaja type (3.168–169); the two types of iron ore (3.170); the ten varieties of iron according to the *Lohapaddhati* (3.171–173); the therapeutic actions of iron (3.174); the characteristics of the types of iron called pāṇḍya, mahīṇḍaka, kāntija, kṛṣṇāyasa and kānta (3.175–179); a combination of mercury and iron sustains the body (3.180); the therapeutic actions of the varieties of kāntaloha called sāra, auṇḍra, kaliṅgaja, taḍāvaṭṭa and bhadra (3.181–185); the therapeutic actions of pāṇḍi, kāntija and kānta iron (3.186–188); the rust (kiṭṭa) of each variety of iron has the same effects as the iron from which it originates (3.189); the relative merits of kiṭṭa, muṇḍa, sāra, auṇḍra, kāliṅga, bhadra, vajra, pāṇḍya, and kāntija; the last type is the very best (3.190–191); the properties of kānta iron, derived from śālagrāma stones, iron derived from sphaṭika, and the type finding its origin in lightning; these types should be used in mercurial recipes and for rasāyana purposes; the actions of iron that has the form of a liṅga (3.192–193); the adverse effects of impure iron (3.194–195); the seven defects (doṣa) of iron (3.196); four methods of purifying iron (3.197–203); signs indicating that iron has been purified (3.204); seven methods of preparing the bhasman of iron (3.205–225); gaṇḍanikā, the chief drug used in the killing of iron; its synonyms (3.226–227); eight drugs employed in the killing of iron: amarī, cāṅgerī, vikaṅkata, raktamāriṣa, tvacaka, manaḥśilā, hiṅgula, and svarṇamākṣika; the curative actions of these drugs (3.228–230); three more methods of preparing a bhasman by killing iron (3.231–238); four methods of ayaskṛti, which produces a bhasman that is vāritara (floating on water) and niruttha (iron cannot be retrieved from it) (3.239–247); the preparation of a red bhasman, also vāritara and niruttha, by means of the juice of the plant called śāliciñcī, also known as chilahiṇḍikā, garuḍinī, pātālamahauṣadhi and gartālābu; rules for the use of this powder; its curative properties (3.248–254); signs indicating that iron has been killed properly (3.255); another way of preparing a niruttha bhasman (3.256); rules for the steeping (bhāvanā) of iron in particular fluids and for the number of puṭas in order to achieve particular curative effects of the preparation (3.257–259); a divergent opinion on this subject (3.260); further processing of the bhasman of iron, making it suitable to yogavāha[892] (3.261); the preparation of the bhasman of a metal in general, as required for the achievement of curative properties (3.262–274); the removal of impurities from metals (3.275); the treatment of disorders caused by defective digestion of a bhasman (3.276); colouring (rañjaka) of the body is effected by kāṃsya killed by means of punarnavā, iron killed by triphalā, and copper killed by sulphur (3.277);

the purification of zinc (kharpara) (3.278);[893] zinc may be killed like tin or copper; its curative properties; zinc (kharpara) is commonly known as yaśada (3.279–280); tin should be killed by means of (hari)tāla, tīkṣṇa(loha) by cinnabar, gold by lead, lead by (manaḥ)śilā, copper by sulphur, and silver by tāpya (= mākṣika) (3.281); methods making a brittle metal malleable (3.282); the general curative properties of bhasmans (3.283); longevity, strength and health are brought about by diamonds, gold and mercury, collectively called amṛtatraya (3.284); praise of the physician thoroughly conversant with the preparation and administration of the eight types of bhasman (3.285–286); the curative properties of the bhasman of iron (3.287–290);

the purification of maṇḍūra (iron oxide)[894] (3.291); the relative merits of maṇḍūra, dependent on its age (3.292); the characteristics of the useful type of maṇḍūra (3.293); two more methods of purifying maṇḍūra (3.294–295).

Chapter four deals with: the seven upadhātus: mākṣika, tuttha, abhra, nīlāñjana, (manaḥ)śilā, (harit)āla, and rasaka; some add vimalā as the eighth one of the series (4.1);

the mythical origin of mākṣika[895] (4.2–3); the two types of mākṣika, distinguished according to its colour; the four types, distinguished according to its form (4.4–5); the relative merits of various types of mākṣika (4.6–7); adverse effects of impure mākṣika (4.8); the properties of hema- and rajatamākṣika (4.9);[896] three methods of purifying mākṣika (3.10–13); adverse effects of unpurified (apakva) mākṣika (4.14); two more methods of purifying mākṣika (4.15–16); preparation of the bhasman (4.17); two more methods of purifying mākṣika (4.18–20); the purification of vimalā, by some regarded as identical with kāṃsyamākṣika (4.21–22); the properties and actions of mākṣika (4.23–24); three methods of extracting the sattva (4.25–30); the therapeutic actions of the sattva (4.31–32);

the two types of vimala:[897] vimala and amala (4.33); the properties and actions of vimala (4.34); the purification of amala (4.35) and vimala (4.36–37); vimala may be killed in the same way as mākṣika (4.38); the therapeutic actions of killed vimala (4.39); the extraction of the sattva (4.40–41); the therapeutic actions of the sattva (4.42);

the mythical origin of sasyaka[898] (4.43); the colour of the variety of sasyaka called tuttha (4.44); the purification of sasyaka (4.45); the extraction of the sattva (4.46–47); the therapeutic effects of the sattva of mayūratuttha (= sasyaka) (4.48);

the five types of añjana: sauvīra, rasāñjana, sroto'ñjana, puṣpāñjana, and nīlāñjana (4.49); the colour of sauvīrāñjana[899] and its therapeutic effects (4.50);[900] its curative actions (4.51); sroto'ñjana[901] occurs in rivers; its curative actions (4.52–53); the properties of puṣpāñjana,[902] which cures eye diseases (4.54); nīlāñjana[903] makes iron malleable; its therapeutic actions (4.55); the purification of añjanas in general (4.56); the purification of nīlāñjana (4.57–58); the sattva of añjanas can be extracted in the same way as that of manaḥśilā (4.59);

the purification and killing of abhra (mica) has already been described; the extraction of its sattva will be discussed afterwards (4.60);

the mythical origin of śilājatu,[904] a substance exuding from mountains during the summer heat (4.61–62); śilājatu is very heavy due to its association with various metals; the type of association determines the names of its varieties (4.63); seven types are distinguished: suvarṇa-, rūpya-, trapu-, sīsa-, tāmra-, loha-, and manaḥśilāśilājatu;[905] the best śilājatu occurs in the Vindhya mountains (4.64); the characteristics, properties and curative effects of kāñcana(= suvarṇa)śilājatu (4.65–66), raupyaśilājatu (4.67), tāmraśilājatu (4.68), trapuśilājatu (4.69), sīsaśilājatu (4.70), āyasa(= loha)śilājatu (4.71–72); the necessity of purifying śilājatu (4.73); therapeutic actions of śilājatu (4.74); the colours of the different types may be examined under the influence of fire or water (4. 75); the properties and actions of śilājatu in general (4.76–80); the extraction of the sattva; its therapeutic actions and use in the bandha of mercury (4.81–82);

the three types of rasaka;[906] their characteristics and relative merits (4.83); three other types. distinguished as to colour (4.84); three methods of purification (4.85–87); rasaka becomes very unstable when heated; the sattva or rasa of kiñculu is the only substance that can stabilize it (4.88–89); therapeutic effects of rasaka (4.90); extraction of the sattva (4.91–93); procedures making rasaka heatresistant (4.94–101);

bhūnāgas;[907] their purification; the extraction of the sattva (4.102–104); the collection and keeping of bhūnāgas; the extraction of the sattva; a ring made with this sattva is effective in poisoning and snake-bite (4.105–107); the bile and feathers of peacocks may be treated in the same way in order to extract a sattva with the same properties (4.108);

the mythical origin of (hari)tāla[908] and manohvā (= manaḥśilā) (4.109); the four varieties of haritāla: godantaka, piṇḍa, ghaṭalākṛti, and kīṭānana; the last of these is the best (4.110); adverse effects of unpurified haritāla (4.111); the properties and curative effects of pure haritāla (4.112); the purification of haritāla (4.113–114); another method, by boiling it with the plant called haritālī or haṃsarāja (4.115); the extraction of the sattva; its properties and therapeutic actions (4.116–126); another way of extracting the sattva (4.127–138);

the mythical origin of manaḥśilā (4.139);[909] its three varieties: śyāmāṅgī, kaṇayantikā, and khaṇḍākhyā; the characteristics and relative merits of these varieties (4.140–142);[910] the adverse effects of unpurified manaḥśilā (4.143); its purification (4.144); the properties and actions of purified manaḥśilā (4.145); the sattva should be extracted in the same way as that of haritāla (4.146);

the eight mahārasas are: rasaka, rasa, śaila, capala, amala, sasyaka, mākṣika, and darada (4.147); according to another opinion the mahārasas consist of: vaikrāntaka, ayaskānta, vimalā, darada, pavi, tāpya, and rasaka (94.148);[911] the rasas consist of: abhraka, tutthaka, kānta, rājāvarta, añjana, vajra, vaikrānta, and ṭaṅkaṇa (4.149); the uparasas are: gandhaka, tālaka, śilā, kṣitikhecara, gairika, etc. (4.150); according to the *Rasasindhu* they consist of: gandha, tāla, śilā, tuttha, bhūnāga, nīlāñjana, kāsīsa, ṭaṅkaṇa, śaṅkha, kaṅkuṣṭha, and varāṭaka (4.151); according to the *Rasaratnākara* the uparasas are: gandhaka, vajra, vaikrānta, vajrābhra, tālaka, śilā, kharpara, śikhituttha, vimalā, hemamākṣika, kāsīsa, kāntapāṣāṇa, varāṭa, añjana, rāvaṭa, kaṅkuṣṭha, śaṅkha, bhūnāga, ṭaṅkaṇa, and śilājatu (4.152–153); gandhaka has the nature of a sattva and is therefore described along with mercury (4.154); the eight sādhāraṇarasas, helpful in the processing of mercury, consist of: kampilla, capala, gaurīpāṣāṇa, navasāraka, kaparda, vahnijāra, girisindūra, and bodāraśṛṅga (4.155–156);

the properties of capala,[912] which is helpful in the bandha of mercury (4.157); the relative merits of the varieties of capala (4.158); the explanation of its name (4.159); capala which remains stable under the influence of fire is the most useful kind (4.160); a second explanation of the name capala (4.161); the preparation of the capala called nāgasaṃbhava,[913] which is used in the bandha of mercury (4.162–163); capala can be killed in the same way as copper (4.164); the properties and uses of capala and its therapeutic effects (4.165–167); the purification of capala (4.168–169); the sattva can be extracted in the same way as that of abhraka; the use of the sattva in the bandha of mercury (4.170);

the mythical origin of vaikrānta;[914] the explanation of its name (4.171); the site where it occurs; its seven varieties; the best variety is that with the colour of an emerald (4.172);[915] the uses of the varieties (4.173);[916] someone wanting to process vaikrānta should offer homage to Gaṇeśa and Bhairava; the latter deity stays there where vaikrānta is found (4.174);[917] two methods of purifying vaikrānta (4.175–176);[918] two methods for the killing of vaikrānta (4.177–179); the therapeutic effects of (the bhasman of) vaikrānta (4.180–182); two ways of extracting the sattva (4.183–186); a procedure that makes vaikrānta assume the colour of blood; this product has wonderful properties (4. 187);

the characteristics of sasyaka[919] (4.188); sasyaka may be purified like mākṣika, killed like copper or mākṣika; its sattva may be extracted like that of mākṣika (4.189); the therapeutic actions of sasyaka (4.190);

kāntaloha is of five varieties: bhrāmaka, cumbaka, karṣaka, drāvaka, and romaka;[920] these have one to five sharp edges (mukha); kāntaloha is of three colours, yellow, red and black, which represent Brahmā, Viṣṇu and Maheśvara; the yellow variety is helpful in transmutation, the red one in rasāyana, and the black one in the bandha of mercury (4.191–194); the relative merits of bhrāmaka, etc. (4.195); the characteristics of the five types (4.196); their relative merits again (4.197); bhrāmaka and cumbaka are useful in treating diseases, karṣaka and drāvaka for rasāyana purposes and the processing of mercury (4.198); kāntaloha exposed to wind and the heat of the sun should not be used (4.199); the purification of kāntaloha (4.200–201); ritual offerings to kā-

ntaloha that is to be employed in rasāyana and the processing of mercury (4.202); the successive conversion of bhrāmaka, etc., into cumbaka, etc., by means of goat's blood (4.203); the interactions between kāntaloha and mercury (4.204–205); the extraction of the sattva (2.206–208); kāntaloha may be killed in the same way as iron in general (4.209);

the mythical origin of diamonds (4.210–211); the diamond is the very best among the uparasas and mahārasas (4.212); diamonds are of four types: brāhmaṇa, kṣatriya, vaiśya, and śūdra;[921] they are also male, female or napuṃsaka;[922] the colours of the brāhmaṇa type, etc., are white, red, yellow, and black (4.213); the characteristics, actions and uses of male, female and napuṃsaka diamonds (4.214–219);[923] the actions and uses of brāhmaṇa, etc., diamonds (4.220–221); the characteristics of the type of diamond suitable to the processing of mercury (4.222); the availibility of diamonds in the four yugas (4.223–224); a second set of characteristics of diamonds suitable to the processing of mercury (4.225); a diamond of excellent quality, mounted in a gold ring, wards off, when worn, all diseases (4.226); the beneficial effects of the wearing of diamonds; pregnant women should not wear diamonds, because they arrest the development of the child (4.227–230); adverse effects of unpurified diamonds (4.231); two methods of purification (4.232–234); diamonds may be killed in three ways (gati), resulting in the production of a druti (a fluid form), bhakta (a soft and swollen form), or bhasman (a powder); a druti is superior to a bhakta, a bhakta to a bhasman (4.235); a druti is used for rasāyana and in processing mercury, a bhakta in dhātuvāda, a bhasman in treating diseases (4.236–237); four methods for preparing a druti (4.238–244); the preparation of a bhakta (4.245); four methods for preparing a bhasman (4.246–250); the preparation of the bhasman of diamonds of the brāhmaṇa (4.251), kṣatriya (4.252), vaiśya (4.253), and śūdra type (4.254);[924] the preparation of the bhasman of male, female and napuṃsaka diamonds (4.255);[925] defects in diamonds (4.256);[926]

rājāvarta[927] is of two types: guṭikā and cūrṇa (4.257); its purification (4.258) and therapeutic actions (4.259); the extraction of the reddish yellow sattva (4.260–261);

brahmapiśācikā[928] resembles the white variety of ṭaṅkaṇa (4.262); its properties, uses and curative actions (4.263); brahmapiśācikā may be purified like ṭaṅkaṇa (4.264);

ṭaṅkaṇa[929] is of three types: sphaṭikābha, guḍaprabha, and pāṇḍura, also known as nīlakaṇṭha (4.265); their relative merits (4.266); the actions of ṭaṅkaṇa (4.267); its purification (4.268);

the characteristics of kampillaka,[930] which is available in Saurāṣṭra (4.269); its therapeutic actions (4.270);[931] the characteristics of gaurīpāṣāṇa;[932] the usefulness of its bhasman (hatacūrṇaka) in the bandha of mercury; the medicinal properties of the bhasman (4.271);[933]

the preparation of the caustic called navasāra or cūlikālavaṇa (4.272);[934] the uses and medicinal actions of navasāra (4.273);[935] viḍa, also called cūlikālavaṇa, is active against all three doṣas (4.274);[936]

the colour, aspect and shapes of varāṭikās,[937] also called barābara (4.275); the relative merits of various kinds of varāṭikās, according to their weights (4.276); their properties, uses and therapeutic actions (4.277–278ab); there are also other varāṭikās, either male or female; these are heavy and provoke kapha and pitta (4.278cd); the purification of varāṭikās (4.279);[938] the actions of mercury bound (baddha) by śaṅkhas, śuktis, varāṭikās and caustics (4.280);

agnijāra[939] consists of the jarāyu, desiccated by the heat of the sun, of agninakras, which live in the ocean (4.281); agnijāra is helpful in the jāraṇa of mercury and possesses a number of medicinal virtues (4.282);[940]

the place of origin and the characteristics of girisindūra[941] (4.283); its uses and therapeutic actions (4.284);[942]

vedāra[943] occurs on the slopes of the Arbuda mountain in Gurjaramaṇḍala (Gujarāt); it is scaly (sadala) and yellow in colour (4.285); vedāra possesses a sattva; it is used in the bandha of mercury, is active against vāta and kapha, cures disorders in males, and is an excellent drug for restoring the black colour of the hair (4.286);[944]

the nature of amṛtaśṛṅga[945] (4.287); its uses and therapeutic actions (4.288); its common name is bodāraśaṅkha (4.289);

a general method for purifying sādhāraṇarasas (4.290);[946] their sattva may be extracted on the same lines as that of mica (4.291);

kaṅkuṣṭha is available in the foothills and mountains of the Himālayas (4.292);[947] the two types of kaṅkuṣṭha: tālika and reṇuka; their properties and relative merits (4. 293); two divergent opinions on the identity of kaṅkuṣṭha; these substances should not be used in the processing of mercury, nor in recipes, because they may bring about numerous disorders (4.294–295); the properties, uses and therapeutic actions of kaṅkuṣṭha (4.296); its purification (4.297);[948]

the preparation of a viḍa, helpful in making mercury digest gold (hemajāraṇa) (4. 298); substances to be used in the killing of iron and the digestion of iron by mercury (4.299); the preparation of a substance enabling mercury to digest all sattvas (4.300);

kāsīsa[949] is of three types; the properties of the yellow type, called puṣpakāsīsa (4. 301); the relative merits of the three types of kāsīsa (4.302); kāsīsa is cooling and resembles mercury in its properties; its therapeutic actions (4.303); the purification of kāsīsa (4.304);[950]

the characteristics of gairika[951] (4.305); its properties and curative virtues (4.306); the purification of gairika (4.307);

kāṅkṣī[952] is of two types: black and yellow (4.308); its properties and curative actions (4.309); the purification of tuvarī[953] (4.310);

the characteristics, properties and therapeutic actions of sphaṭikā[954] (4.311–312); its purification may be carried out on the same lines as that of kāṅkṣī (4.313);

a general method of purification applicable to all the mahārasas, rasas and uparasas; after this purification, the sattvas can be extracted (4.314–317); a general method for extracting sattvas (4.318–321); signs relative to the flames of the fire, indicating that a sattva has flown out (4.322); the softening of a hard sattva (4.323–326); this softening is necessary because a hard sattva cannot permeate mercury or the human body (4.327); the characteristic colours of the flames during the extraction of particular sattvas (4. 328–330); the signs indicating that the process of purifying a metal has been completed (4.331); characteristics of the flames during the extraction of the sattva from copper (4.332); the measurements of the koṣṭhī, required for the extraction of a sattva (4.333); the type of fuel and the way to use it (4.334); the relative potencies of a sattva, a druti,

and a druti added to mercury (4.335); the construction of the koṣṭhī (4.336–337); the qualities required in a physician who devotes himself to alchemical practices (4.338);

all sattvas should be converted into their bhasmans before use (4.339); the sattva of a particular metal, etc., should be purified like the corresponding metal, etc. (4.340); making the particles of a sattva cohere like a khoṭa (a solid ball) (4.341); sattvas may be converted into a bhasman by the same methods as those employed in the killing of copper or gold (4.342); metals suitable to the bandha of mercury (4.343–344);[955]

six kinds of salt are distinguished: sāmudra, saindhava,viḍa, sauvarcala, giḍa,[956] and cūlikā (4.345); the sources of salts and caustics; the origin of yavakṣāra (4.346);[957] sources of saindhava salt (4.347); the source of sāmudra; places where saindhava is available (4.348); various types of saindhava, their properties, uses and curative actions (4.349–351); the alchemical uses and curative virtues of salt mixed with sulphur (4. 352); the shape of salt obtained from a tank (kuṇḍa) containing saline water (4.353);

the groups of substances called madhuratraya (4.354), mitrapañcaka (4.355) and kaṭutraya (4.356), and the alchemical uses of the latter two; the preparation of a dhūtakṣāra from various plants (4.357–358); the preparation of a vṛntakṣāra from various plants (4.359); the preparation of a kṣāra (caustic) in general; its properties; the explanation of the term kṣāra (4.360); the four most important kṣāras (4.361); birds whose excrements may be employed in alchemical procedures (4.362);[958] the composition of the group of substances called dugdhavarga, consisting of milks and milky saps from plants (4.363–364);[959] the five upaviṣas: snuhī, arka, karavīra, lāṅgalī and viṣamuṣṭikā (4.365); the sources of oils employed in processing mercury (4.366–368); the sources of vasā employed in processing mercury (4.369);[960] animals, whose urine, seed and menstrual discharge are employed in processing mercury (4.370); the groups called pañcagavya, pañcamāhiṣa, pañcāja, and pañcāvi (4.371); the groups of substances, also employed in alchemical procedures, which are called pañcāmla (4.372), amlavarga (4. 373–375), raktavarga (4.376–377), pītavarga (4.378),[961] śvetavarga (4.379–381), kṛṣṇavarga (4.382),[962] drāvaṇapañcaka (4.383), śodhanatritaya (4.384), the group of drāvaka plants (4.385),[963] the group of krāmika plants (4.386–387), the groups called aṣṭamūlikā (4.388)[964] and pañcaratna (4.389),[965] the group of māraka plants (4.390–394),[966] the group called apunarjanmakavarga (4.395–396), and the group of divyauṣadhis (4.397–399);

descriptions of a series of divyauṣadhis and their uses in alchemy and medicine: kṣiprā[967] (4.400–404), dagdharuhā (4.405–407),[968] sthalapadminī (4.408–409),[969] nāgadamanī (4.410–414),[970] uccaṭā (4.415–416),[971] vartulaparṇī (4.417),[972] rudantī (4. 418–420), the three varieties of citraka (4.421–426),[973] jyotiṣmatī (4.427–431),[974] umā (4.432–434), chāyādruma (4.435–445), kaṭutumbī (4.446–448),[975] kṣīrakanda (4.449–451),[976] devadālī (4.452–454),[977] tṛṇajyotis (4.455–456),[978] and śvetaguñjā (4.457–461);[979]

the preparation and uses of candrodaka (4.462–468),[980] kartarītoya (4.469–473),[981] viṣodaka and ghṛtodaka (4.474–478),[982] saṃjīvanajala (4.479–485),[983] śailodaka (4.486–495),[984] tṛṇodaka (4.496–503),[985] and uṣṇodaka (4.504–505);[986]

four types of ahiphena, of different colours, deriving from various types of marine animals; their uses in alchemy (4.506–508); another type of ahiphena, black in colour, deriving from the plant khasakhasa, growing in Miśradeśa (i.e., Egypt); its characteristics (4.509); the purification of ahiphena (4.510); the group of substances called malina, consisting of bhaṅgā, ahiphena and dhuttūra; these substances cure śītajvara and are helpful in the purification of mercury (4.511);

the ten mahāviṣas: kālakūṭa, meṣaśṛṅgī, dardura, halāhala, karkaṭa, granthi, hāridra, raktaśṛṅgī, kesara, and yamadaṃṣṭrā; three other mahāviṣas consist of the frothy saliva (phenaka) of three poisonous animals (4.513–514); the composition of the group called pañcāmṛta, useful in medicine and alchemy (4.515–516); yogavāhin poisons used for alchemical and rasāyana purposes (4.517); their doses (4.518); the three main mahāviṣas: śṛṅgī, vatsanābha and kālakūṭa; the remaining poisons are upaviṣas (4.519); the three types of śṛṅgī (4.520); the description, according to another authority, of the two types of śṛṅgī: white and red (4.521–522); another authority again distinguishes three types of śṛṅgī: red, yellow and black; their uses in alchemy and medicine (4.523–524); the shape of meṣaśṛṅgī; its uses in alchemy and medicine (4.525); the eight poisons to be employed in processing mercury: saktuka, mauṣṭika, kaurma, dārvīka, sārṣapa, saikata, vatsanābha, and śvetaśṛṅgī (4.526); the characteristics and uses of saktuka (4.527), mauṣṭika (4.528), kaurma (4.529), dārvīka (4.530), sārṣapa (4.531), saikata (4.532),[987] vatsanābha (4.533–534),[988] kālakūṭa (4.535),[989] halāhala (4.536), hāridra (4.537),[990] and yama- or śvadaṃṣṭrā (4.538);[991] three methods of purifying poisons (4.539–542); drugs counteracting the intensity of the toxic effects of poisons (4.543); the killing of poisonous substances (4.544); therapeutic actions of poisonous substances (4.545); the treatment required when the dose has been too large (4.546–547); the purification of svarṇakṣīrī; its therapeutic actions (4.548–549); the purification of viṣamuṣṭi (4.550), jepālaka[992] and kanaka (4.551); the preparation of keśataila (4.552–554),[993] bolapiṇḍa (4.555–558), kumārīrasa (4.559), and vṛkṣasattva (4.560–568);

nine methods of preparing the druti of mica (4.569–606), three methods for that of gold (4.607–616), a tenth method for that of mica (4.617–623), one method for that of mākṣika (4.624–625), two methods for that of metals and their sattvas (4.626–630), one method for that of vaikrānta and some other substances (4.631–632), one method for that of pearls and other gems (4.633–634); the preparation of mixtures of drutis and mercury (4.635–637); the dose and the action of such a mixture (4.638–640);

the group of maṇirasas: rājāvarta, tuttha, mauktika (pearl), vidruma (coral) and vaikrānta (4.641); the gems used in the bandha of mercury: vaikrānta, sūryakānta, hīraka (diamond), mauktika, candrakānta, rājāvarta, puṣparāga, nīla, padmarāga, pravālaka (coral), and vaiḍūrya (4.642–643);[994] the group of nine gems: puṃvajra (male diamond), garuḍodgāra, māṇikya, vāsavopala,[995] vaiḍūrya, puṣpa(rāga), gomeda, mauktika, and pravāla (4.644); the mahāratnas are five, the uparatnas four in number; the uparatnas are: pravāla, garuḍodgāra, vaiḍūrya and puṣparāga (4.645); the nine gems associated with the nine grahas are: māṇikya, muktāphala, vidruma, tārkṣya, puṣpa(rāga), bhidura (diamond), nīla, gomedaka, and vidūraka; the nine grahas are, in the same order, sun, moon, Maṅgala (Mars), Budha (Mercurius), Bṛhaspati (Jupiter), Śukra (Venus), Śani (Saturn), Rāhu, and Ketu (4.646–647);[996] gems with auspicious characteristics and of the right jāti should be selected for the

purpose one has in mind (4.648);[997]

the two types of māṇikya (ruby); its four varieties (4.649); the characteristics of suitable rubies (4.650–651);[998] rubies suitable to be used in processing mercury (4.652); the eight defects of rubies (4.653);[999] the medicinal actions of rubies (4.654);[1000] the eight types of muktāphala (pearl) (4.655–656); pearls suitable for alchemical purposes (4.657);[1001] defects of pearls (4.658);[1002] the medicinal actions of pearls (4.659); characteristics of suitable and unsuitable types of pravāla (= vidruma; coral) (4.660–661);[1003] coral needs purification before medicinal use (4.662); the medicinal actions of coral (4.663–665); the four types of garuḍodgāra (emerald) (4.666); emeralds suitable for alchemical uses (4.667); the seven good qualities of emeralds (tārkṣya) (4.668);[1004] defects of emeralds (4.669);[1005] the medicinal actions of emeralds (4.670);[1006] the eight good qualities of a puṣparāga (topaz) (4.671);[1007] bad features (4.672);[1008] the medicinal actions of topazes (4.673);[1009] the two types of nīla (sapphire), their characteristics and relative merits (4.674);[1010] the seven good qualities of sapphires (4.675);[1011] the characteristics of the sapphire called mahānīla (4.676); the seven defects of sapphires (4.677–678);[1012] the medicinal actions of sapphires (4.679);[1013] the origin of the gomeda (cinnamon stone); the eight good qualities of gomedas (4.680–681); the defects of gomedas (4.682);[1014] the medicinal actions of gomedas (4.683);[1015] the characteristics of a good marakata (a kind of emerald) (4.684); the defects of marakatas (4.685); the medicinal actions of marakatas (4.686); the characteristics of a vaiḍūrya (cat's eye) (4.687); the medicinal actions of vaiḍūryas (4.688); the defects of vaiḍūryas (4.689);[1016] the characteristics of the rasonikā (a kind of cat's eye) (4.690);[1017] its curative actions (4.691); the characteristic features of the garuḍodgārapāṣāṇa[1018] (4.692–693); the curative virtues of this rare and priceless gem (4.694); although unpurified gems do not show adverse effects on administration, they should yet be purified for the increase of their therapeutic virtues (4.695); methods to purify each of the gems (4.696–697);[1019] the killing of gems (4.698–701);

the extraction of oils in general (4.702);[1020] the extraction of an oil from dhattūra seeds (4.703–705);[1021] the same methods apply for the extraction of an oil from the seeds of śigru, muṣkaka, kārpāsa, apāmārga and palāśa (4.706–707);[1022] the extraction of an oil from the seeds of aṅkola, kākatuṇḍī, bākucī and devadālī (4.708),[1023] from viṣamuṣṭi and jaipāla (4.709),[1024] āragvadha (4.710),[1025] from the seeds of kaṭutumbī, devadālī, paṭolī, indravāruṇī and tiktakośātakī (4.711), kaṭutumbī (4.712),[1026] mahākāla (4.713–714),[1027] from pippalī and the seeds of kākatuṇḍī (4.715),[1028] from the seeds of karañja (4.716), palāśa (4.717),[1029] guñjā (4.718),[1030] jyotiṣmatī (4.719),[1031] badara and harītakī (4.720), āmrāḍa (4.721), putrañjīva and raktabīja (4.722),[1032] bilva (4.723),[1033] kola (4.724–726),[1034] from human hairs (keśataila) (4.727–728);[1035] the extraction of oils from seeds by means of the heat of the sun (4.729–730);[1036] extraction by means of a pātālayantra or garbhayantra (4.731–732).[1037]

The order of the diseases in the *Āyurvedasaukhya* is generally the same as in the *Mādhavanidāna*, apart from some additions and minor changes.[1038] The prescriptions are partly of an āyurvedic, partly of a iatrochemical type. Religious and magical elements are rather frequent in Ṭoḍara's therapeutics.[1039]

The text contains some passages in prose which are borrowed from commentaries or other works in prose.[1040] Many subjects, related in some way to therapeutic prescriptions, are dealt with at some length, e.g., sleep and prescriptions inducing sleep, etc. (III: 4.1290–1327), caustics (kṣāra; IV: 3.213–239), the purification of śilājatu (IV: 6.119–128), śirobasti (V: 11.309–314), netrabasti (V: 11.316–323), the uses of laśuna, i.e., garlic (V: 11.569–595), tailapāka, i.e., the preparation of medicated oils (V: 11. 801–806), a list of drugs to be purified before medicinal use (V: 11.807–810), a list of drugs to be freshly collected (V: 11.811–814), lists of plants the wood, roots, leaves, flowers, fruits, etc., of which are used in medicine (V: 11.822–835), three groups of fragrant drugs to be added to medicated oils (V: 11.836–847),[1041] rules for the purification of a long series of drugs (V: 11.868–981), etc.

Sources and authorities quoted or referred to in volumes III–V are:[1042] Agastya,[1043] Agniveśa,[1044] *Aṣṭāṅgakāṇḍa*,[1045] the Aśvins, Ātreya,[1046] Bhāluki, Bhāradvāja, Bhāskara,[1047] *Bhavānīmata*,[1048] *Bhāvasvabhāva*,[1049] Bhela, Bhoja, Bhṛgu,[1050] Bindusāra, Bodhisattva,[1051] Brahmā,[1052] Brahmasuta,[1053] *Bṛhadātreya*,[1054] Cakrapāṇi,[1055] Caraka,[1056] Carpaṭi, *Cikitsākalikā*,[1057] *Cikitsākalikāṭīkā*,[1058] *Cintāmaṇi*,[1059] Daṇḍapāṇi, Dhūrjaṭi,[1060] *Dravyaguṇamālā*,[1061] Gadādhara,[1062] *Gandhapradīpapattrikā*, *Gandhatantra*, Gopura, Gorakṣa,[1063] *Haramekhalā*, Hariścandra, Hārīta,[1064] Indra,[1065] Jālandhara,[1066] Jayadatta,[1067] Jejjaṭa,[1068] *Kakṣāpuṭi*, *Kalyāṇakāraka*, *Kaniṣṭhātreya*, Kāṅkāyana, Kapila,[1069] Kārtavīrya, Kāśyapa,[1070] Kathaṇḍinātha,[1071] Kharanāda, Kṛṣṇātreya,[1072] Lāyikā,[1073] *Madhyamātreya*, Mahābhairavanātha,[1074] Mahādeva,[1075] Manthānabhairava, Matimukura, Mṛtyuñjaya,[1076] Nāgārjuna,[1077] *Nakṣatramālā*,[1078] Nala,[1079] Nārada,[1080] Nityanātha, Nivāraṇa,[1081] Pālakāpya, Parāśara, *Parimalapradīpa*,[1082] Pārvatī, Pauṣkalāvata, Pūjyapāda,[1083] *Rājahaṃsa*,[1084] *Rasadīpikā*, *Rasālaṃkāra*, *Rasarahasya*, *Rasarājahaṃsa*,[1085] *Rasarājalakṣmī*, *Rasaratnākara*, *Rasaratnapradīpa*, *Rasaratnāvalī*,[1086] *Rasārṇava*, *Rasasāgara*, *Rasasāra*, *Rasasindhu*, *Rasāvatāra*, *Ratnākara*, *Rugviniścaya*,[1087] *Śaivāgama*,[1088] *Śaivālabhakṣa(ṇa)mata*,[1089] *Śaivasiddhānta*, Śālihotra, *Saṃnipātakalikā*,[1090] *Sārasaṃgraha*, *Siddhasāra*,[1091] Śiva, *Śivāgama*,[1092] *Śivarahasya*,[1093] *Smṛtiśāstra*, *Śrīnivāsasaṃhitā*,[1094] *Sūdaśāstra*, Suṣeṇa,[1095] Suśruta,[1096] *Sūtamahodadhi*, *Sūtārṇava*, *Svacchandāgama*,[1097] *Svacchandaśaktyāgama*,[1098] *Tottala*,[1099] Vāgbhaṭa,[1100] *Vaidyālaṃkāra*,[1101] Varuṇa,[1102] Vāsudeva,[1103] Videha, Vīrabhadra,[1104] Viṣṇu, *Vṛddhasuśruta*, *Vṛddhātreya*, Vṛnda, Vṛndāraka,[1105] Vyāḍi, Yadunandana,[1106] and *Yogaratnāvalī*.

Sources and authorities quoted or referred to in Volume VI are: Agniveśa, *Aṣṭāṅgakāṇḍa*,[1107] the Aśvins,[1108] Ātreya, Bhaṭṭarāmamiśra,[1109] Bhoja, Caraka, Gopura, *Gorakṣamata*,[1110] Jejjaṭa, Jīvaka,[1111] Kāṅkāyana,[1112] Kapila,[1113] Kharanāda, Kṛṣṇātreya, Pinākin (i.e., Śiva),[1114] Pūjyapāda,[1115] *Rasarājalakṣmī*, Śaṃkara (i.e., Śiva),[1116] Suśruta, Tārā,[1117] *Vaidyasuradruma*,[1118] and Vaitaraṇa.

Volume VII ascribes recipes to the following authorities: the Aśvins (12.116–121; 15.49–55), Brahmā (16.325–330), Dhanvantari (12.147–148), Kāśyapa (16.308–313), Kṛṣṇātreya (14.47–52), Mahādeva (5.251–264), and Vaidyanātha (5.144). Suśruta is referred to on the subject of the number of eye diseases (16.4–8) and the dimensions of the eye (16.9–10).

Volume VIII ascribes recipes to the Aśvins (4.33–47; 6.21–28; 10.62–68 and 70–

80), Ātreya (1.28–33), Bharadvāja (6.34–42), and Kāśyapa (8.93). Rāvaṇa's *Kumāratantra* forms part of chapter seven on children's diseases.[1119] Large parts of chapters twelve to fifteen were borrowed from the *Śārṅgadharasaṃhitā*.

Volume IX quotes from or refers to: Agniveśa,[1120] Amogha,[1121] āmnāyavidaḥ,[1122] Ātreya,[1123] Bhadraśaunaka,[1124] Bhairava,[1125] *Bhavānīmata*,[1126] Bhela,[1127] Bhoja,[1128] *Bṛhadātreya*,[1129] Candranandana,[1130] Candraṭa,[1131] *Candrikā*,[1132] Caraka,[1133] *Cintāmaṇi*,[1134] *Cūḍāmaṇi*,[1135] Ḍalhaṇa,[1136] Dhūrjaṭi,[1137] *Dravyaguṇamālā*,[1138] Gopura,[1139] Gopurarakṣita,[1140] *Gorakṣamata*,[1141] *granthāntara*,[1142] Hārīta,[1143] Jaijjaṭa,[1144] Jālandhara,[1145] Jīvanātha,[1146] Kākacaṇḍeśvara,[1147] *Kākacaṇḍeśvaratantra*,[1148] *Kakṣāpuṭi*,[1149] *Kalpapradīpa*,[1150] Kāśyapa,[1151] Kharanāda,[1152] Kṛṣṇātreya,[1153] Kṣārapāṇi,[1154] *Kṣīrasindhu*,[1155] *Lohapaddhati*,[1156] Māṇḍava,[1157] matāntara,[1158] Mohāpāla,[1159] Nāgārjuna,[1160] Nala,[1161] *Nandikācāryatantra*,[1162] Pārāśara,[1163] Patañjali,[1164] *Prayogapārijāta*,[1165] *Purandararahasya*,[1166] Puṣkalāvata,[1167] *Rājahaṃsa*,[1168] *Rasacintāmaṇi*,[1169] *Rasacūḍāmaṇi*,[1170] *Rasadarpaṇa*,[1171] *Rasakāmadhenu*,[1172] *Rasālaṃkāra*,[1173] *Rasāṅkuśa*,[1174] *Rasapradīpa*,[1175] *Rasarahasya*,[1176] *Rasarājahaṃsa*,[1177] *Rasarājalakṣmī*,[1178] *Rasaratnākara*,[1179] *Rasaratnasamuccaya*,[1180] *Rasārṇava*,[1181] *Rasasāgara*,[1182] *Rasasāra*,[1183] *Rasaśāstra*, *Rasasiddhānta*,[1184] *Rasasindhu*,[1185] *Rasāvatāra*,[1186] *Rasendramaṅgala*,[1187] *Ratnadīpikā*,[1188] *Ratnākara*,[1189] Rūpāyana,[1190] *Śaivāgama*,[1191] Śaivālabhakṣa,[1192] Śārṅgadhara,[1193] Śaunaka,[1194] Siddha Nāgārjuna, *Siddharatnākara*,[1195] *Siddhasāra*,[1196] *Sindūrāraṇa*,[1197] *Śivāgama*,[1198] *Śivamekhalā*,[1199] *Śivarahasya*, Suśruta,[1200] Svacchanda,[1201] Tottala,[1202] Vācaspati,[1203] Vāgbhaṭa,[1204] *Vaidyālaṃkāra*,[1205] Varāhamihira,[1206] Vasiṣṭha,[1207] Viśvāmitra,[1208] *Vṛddhabhoja*,[1209] *Vṛddhahārīta*,[1210] *Vṛddhaśaunaka*,[1211] *Vṛddhasuśruta*,[1212] and *Vṛddhavāhaḍa*.[1213]

Other works and authorities quoted in the *Āyurvedasaukhya* are:[1214] *Ativiṣādi*, Haihaya,[1215] Nāgodara,[1216] *Pratāpālaṃkāra*,[1217] *Rogamurāri*,[1218] Romavedha (?), *Trailokyaḍambara*,[1219] and *Udakamañjarī*.[1220] According to P. Peterson,[1221] the compilers also consulted the work of Kuntīsuta.[1222]

Vol. IX quotes the *Rasārṇava* much more often than indicated in the text. Works cited without any reference to them are the *Rasendracintāmaṇi* and *Rasendracūḍāmaṇi*.[1223] Other sources left unmentioned are probably Cakrapāṇidatta's *Cikitsāsaṃgraha*[1224] and Cāmuṇḍa's *Jvaratimirabhāskara*.[1225] Many verses found in the *Āyurvedasaukhya* form also part of Bhāvamiśra's *Bhāvaprakāśa*.[1226]

The *Ṭoḍarānanda* is quoted in Ananta's *Pratāpakalpadruma*, the *Āyurvedīya Khanijavijñāna*, Dattarāma's *Bṛhadrasarājasundara*, Gulrājśarmamiśra's commentary on the *Āyurvedaprakāśa*, Hariprapanna's *Rasayogasāgara*, Hariśaraṇānanda's *Kūpīpakvarasanirmāṇavijñāna*, Nirañjanaprasāda Gupta's *Pāradasaṃhitā*, the *Pākārṇava*, Rāmaprasāda's *Rasendrapurāṇa*, the *Rasadhātuprakāśa*, the *Rasatattvavivecana*, Āśubodha and Nityabodha Senagupta's commentary on the *Rasaratnasamuccaya*, Hazārīlāl Sukul's commentary on the *Rasaratnasamuccaya*, and Vācaka Dīpacandra's *Laṅghanapathyanirṇaya*.[1227] It was one of the sources of Kalyāṇa's *Bālatantra* according to Dīpacandra.[1228]

Special features

Volume I does not contain new material when compared with its sources.

Volume II. Chapter one: the science of āyurveda is said to have been divided into eight branches by Kālamardana (1.14); śalya (surgery) is mentioned first in the list of these eight aṅgas of āyurveda; the division of āyurveda into nine branches, as found in the *Hārītasaṃhitā*, with the addition of basticikitsā, called agada, is referred to and rejected (1.37–40). Chapter two: the description of the five kinds of vāyu, according to the *Vivekamārtaṇḍa* (2.8–12), diverges from what is usually found in āyurvedic treatises; interesting are the accounts of āma (2.87–106) and prakṛti (2.203–229). Chapter three: noteworthy are the verses on pācana and dīpana drugs (3.25–42), vīrya (3.81–83), the explanation of a disagreeing vipāka (3.107), two types of prabhāva (hita and ahita; 3.111), pollution of country, water and air (3.236–250), the regimen for day and night (3.262–355), the examination of a patient's strength (balaparīkṣā; 3.359–390) and sātmya (3.391–411).

Chapter four is full of interesting details on metabolism and the physiology of the reproductive organs, embryology, pregnancy, and allied subjects; the verses on anatomy mention the length of the intestine in the male and female (4.235), the function of the phupphusa (4.238), and ten apertures (randhra) of the male body (4.263);[1229] the verses on the seven layers of the skin and their thickness (in agreement with Su.Śā.4.4) are ascribed to Vasiṣṭha. Chapter five: the description of a kālacakra for ascertaining the span of life left to a patient (5.30–35) probably derives from a Tantric source; patients who are going to die are said to be no longer able to see the three steps of Viṣṇu, i.e., Arundhatī, Dhruva and the heavenly Gaṅgā (i.e., the Milky Way), nor the Mātṛmaṇḍala (5.63–64). Chapter six: the verses on nāḍīparīkṣā are said to be from Ātreya, Caraka and *Vṛddhahārīta*, those on mūtraparīkṣā from Carpaṭi, Gopura, Hariścandra, Nāgārjuna and the *Śivāgama*,[1230] those on malaparīkṣā from the *Rudratantra*; jihvā- and dantaparīkṣā are said to have been described and propagated by Hārīta in conformity with Brahmā's teachings; nakhaparīkṣā derives from Brahmā; the parīkṣā scheme of the *Āyurvedasaukhya* differs from the more usual aṣṭasthānaparīkṣā, danta- and nakhaparīkṣā being uncommon elements; seven morbid affections of the teeth are described (6.103); several ways of predicting the date of death are described according to a number of Tantric texts (*Narapaticaryā*,[1231] *Rasārṇava*, *Yogaratnāvalī*, *Śrīnivāsasaṃhitā*).

Volume III. One series of thirteen saṃnipāta fevers is described: sandhiga, antaka, rugdāha, cittavibhraṃśa or -bhrama, śītāṅga, tandrika, kaṇṭhakubja, karṇika, hāridra(ka), bhugnanetra, raktaṣṭhīvin, pralāpaka, and jihvaka (4.264–532). The fever called abhinyāsa has been added to this series (4.557–691). Usually, this sequence of fevers ends with abhinyāsa[1232] and does not include hāridraka.[1233] The number of days during which these fourteen fevers endanger the life of a patient is mentioned in a separate list (4.259–262).[1234] The descriptions partly agree with those found in Cāmuṇḍa's *Jvaratimirabhāskara*,[1235] another part deriving from some unknown source.[1236] Three fevers which in other treatises belong to a separate series of saṃnipāta fevers, phalgu, pākala and phuṃphunaka, are regarded as varieties of respectively śītāṅga and tandrika (4.533–536);[1237] a fever, described in the same context and called vaidārikakarṇa (4.538–539),[1238] may be related to the vaidārika of other texts.[1239] Reversed types are described of cāturthaka, tṛtīyaka, satata and

anyedyuṣka fever (4.752–759); a synonym of cāturthaka is praskandina. The fevers called raudrajvara,[1240] māhendrajvara, jvareśvara, kālajvara and gambhīrajvara[1241] are said to derive from *Kaniṣṭhātreya*.

Volume IV. The chapter on atisāra has verses on four doṣic types of pravāhikā (1. 26–28), on jvarātisāra (1.31–67), diarrhoea occurring during the puerperium (prasūtidoṣottha; 1.132–134), and on the therapy of prolapse of the rectum (1.195–199). The chapter on grahaṇī describes the varieties of this disorder called saṃgrahagrahaṇī (2. 22) and ghaṭīyantragrahaṇī (2.23), that on agnimāndya the bhasmaka type of the digestive fire (4.14–16 and 41–42) and the disease called daṇḍakālasaka (4.33–34). The chapter on pāṇḍuroga describes the variety of jaundice called pānakī (6.25) and the purification of śilājatu (6.119–128).

Volume V. The chapter on vātavyādhi describes prāṇāyāma (11.125), ūrdhvavāta (11.131), śītavāta (11.133) and kaṭigraha (11.144) as separate disease entitites; it also mentions the diseases called jhiñjhiṇi (11.228),[1242] aṅgulivāta (11.435), prasūtivāta (11.491), and pārśvavāta, also called pasūrikā (11.799);[1243] the term āḍhyavāta occurs rather frequently as a synonynm of both vātarakta (11.38, 268, 538) and ūrustambha (13.5; 14.82). The chapter on vātavyādhi contains a list of drugs that should be purified before using them in recipes (11.807–810) and a list of drugs that should be freshly collected (11.811–814). Groups of drugs are enumerated of which the wood (11.822), leaves (11.823–824), fruits (11.925–827), barks (11.828), exudates (11.830), roots (11.833–834) and flowers (11.835) are used in medicine. Fragrant substances employed as additives to medicated oils are divided into three categories: udāsīna (neutral), śatru (unfriendly) and mitra (friendly) (11.838–843). Some verses (11.848–854) are devoted to the process known as vedha (potentiation) in the science of perfumery. The purification of a number of fragrant substances is described according to the *Gandhatantra* (11.866–980).

Volume VI. The chapter on śūla contains descriptions of different forms of this disorder (1.15–25), taken from the *Suśrutasaṃhitā*. Chapter two employs the term jaratpitta both as a synonym of annadravaśūla (2.12) and as designating a disorder that differs from the latter (2.51).[1244] Chapter eight mentions (8.41) the prostate (pauruṣa) according to the translators, but, the prostate being unknown in āyurvedic literature, pauruṣa can better be translated as penis. Chapter nine adds two types of prameha to the usual series of twenty: khaṭikāmeha (9.22) and pūyameha (9.23). A separate chapter (10) is devoted to kṛśaroga. Chapter fourteen, on vṛddhi, differentiates kuraṇḍa from vṛddhi (14.11) and describes bradhna as a separate disease (14.10). Chapter seventeen includes a description of stanavidradhi (mammary abscess; 17.30–31). Chapter eighteen contains a characterization of raktapāka (18.12–13) and includes the description and treatment of agnidagdha (burns; 18.110–130).

Volume VIII. Three mantras are added to the text of Rāvaṇa's *Kumāratantra*, addressed to Rudra and Khaḍgarāvaṇa. The chapter on rasāyana contains a number of kalpas.

Volume IX. A rarely mentioned substance described is brahmapiśācikā (4.262–264); a rarely mentioned gem is rasonikā (4.690–691).

Noteworthy names of medicinal plants in Volumes III–IX[1245] are: ābhā (V: 11.350, 484, 503, 520),[1246] ajabhārī (IX: 4.392),[1247] ambhodhivṛkṣa (IX: 1.536),[1248] amilāna (VIII: 10.99),[1249] amlaparṇī (IX: 2.333),[1250] aśokī (V: 11.839),[1251] bahupattrā (VIII: 8.194),[1252] bhīrupattrī (IX: 4.387),[1253] brahmabīja (IX: 2.133; 4.637),[1254] brahmakāṣṭha (IX: 3.114),[1255] candramāṃsī (IV: 3.286),[1256] candraprabhā (VI: 9.99),[1257] candrasūrya (V: 11.410),[1258] cettodhātrī (III: 4.193),[1259] chikkaṇī (III: 4.371),[1260] chilahiṇḍikā (IX: 3.248),[1261] cholaṅgapattra (V: 11.975),[1262] coka (V: 11.699),[1263] cova (V: 11.670),[1264] daṇḍahastī (V: 11.839),[1265] dehulī (V: 11.839),[1266] dehulikā (V: 11.838), devakaṇḍarikā (IX: 3.223),[1267] ḍherā (III: 4.371),[1268] durvarṇa (V: 11. 719),[1269] dvipabalā (V: 11.161),[1270] ekaparṇī (IX: 3.35),[1271] gajabalā (IX: 2.42),[1272] gajakusuma (VII: 13.186),[1273] gartakalambukā (IX: 3.206 and 227),[1274] gartālābu (IX: 3.249),[1275] ghaṭabīja (III: 4.371),[1276] ghaṭākanda (IX: 4.415),[1277] gonarda (V: 11.828),[1278] hanumantikā (IX: 4.391),[1279] harikanda (VI: 1.26),[1280] haritālī (IX: 4.115),[1281] harṣaṇī (V: 11.597),[1282] hṛddhātrī (III: 4.309, 425, 485, 587; V: 11.758 and 791),[1283] hṛtparṇī (III: 4.661 and 959),[1284] huruhuru (III: 4.371),[1285] ikṣuparṇī (V: 11.841),[1286] indrasurī (VI: 10.38),[1287] jalasūkarī (VIII; 10.159),[1288] jvālāmukhī (IV: 8.177; IX: 4.239),[1289] jyotsnikā (IV: 3.55 and 181),[1290] kabāba (IV: 3.286),[1291] kākavallī (IX: 4.397),[1292] kākinī (VI: 8.87),[1293] kālānī (VII: 17.95),[1294] kalāpavidalī (VI: 18.147),[1295] kapilikā (IX: 2.175),[1296] karpūrī (V: 11.944),[1297] kaṭhorā (IX: 3.238),[1298] kaṭuhuñcī (IX: 4.397),[1299] kebuba (V: 11.548),[1300] keṅkaṭī (V: 11.640),[1301] khaṅgārī (IX: 4.390),[1302] khaṇḍakarṇa (VII: 7.45),[1303] khurāsāna (VI: 9.126),[1304] kṣāranālī (IX: 4.387),[1305] kṣatriṇī (III: 4.155; V: 11.812),[1306] kṣetradūtī (V: 11.811),[1307] kṣīrakañcukī (V: 11.357),[1308] kugarachinna (IX: 3.228),[1309] kukkuramardaka (III: 4.499),[1310] kukurunda (III: 4.503 and 720),[1311] kunthaka (VI: 8.56),[1312] madhukulyā (VIII: 10.74),[1313] mahāsamudrā (V: 11.833 and 838),[1314] maṅgāraka (III: 4.623),[1315] meṣakanda (III: 4.1120),[1316] moraṭī (VII),[1317] nameru (VI: 8.101),[1318] pācya (VI: 8.87),[1319] pālindī (VIII: 8.184),[1320] peyarī (IX: 4.386),[1321] pītaveṇī (IX: 4.315, 607, 610, 628),[1322] pīvarī (V: 11.709),[1323] potikā (VII: 13.81; 16.233),[1324] puṭapattrī (V: 11.809),[1325] rājakarṇa (IX: 3.35),[1326] raktadantī (IX: 4.390),[1327] raktavajrī (IX: 4.397),[1328] rasendravallī (VI: 1.125),[1329] reśī (V: 11.808),[1330] rīṭhā (III: 4.371),[1331] saddināra (III: 4.377),[1332] śailakarṇī (V: 11.392),[1333] śailamuṣṭi (V: 11.922–923),[1334] śālaciñcā (IX: 3.227),[1335] śālīciñcī (IX: 3.248),[1336] śālūkapatnī (IX: 4.429),[1337] sarjaparṇī (VII: 5.200),[1338] śaśakapriya (V: 11.814),[1339] siṃhavallī (IX: 4.388),[1340] śīrṣikā (V: 11.947–948),[1341] sitisāra (VI: 6.26),[1342] smāraṇī (IX: 3.59),[1343] srāviṇī (VII: 17.95),[1344] sthalīśakalā (V: 11.828),[1345] sūcīpuṣpa (IX: 1.442),[1346] sukāma (V: 11.637),[1347] sukhāspṛśā (VIII: 4.6),[1348] surabhī (V: 11.976),[1349] suvīrā (VII: 17.97),[1350] taja (V: 11.672),[1351] tārā (IX: 4.398),[1352] triśiras (III: 4.541),[1353] triśūlī (III: 4.874),[1354] udakarasā (IX: 4.385),[1355] uṣṇāmbu (VI: 1.121),[1356] vārāhakarṇī (IX: 4.386),[1357] veṇikā (IX: 1.517),[1358] verojā (VIII: 10.158),[1359] vibhīṣaṇa (V: 11.567–568),[1360] vīra (III: 4.502, 510, 1096).[1361]

The author

The *Ṭoḍarānanda*, attributed to Ṭoḍaramalla himself,[1362] was actually prepared under his patronage by several scholars of Benares.[1363] Opinions differ as to whom the general editorship was entrusted. According to some this was Nārāyaṇa Bhaṭṭa,[1364] according to others it must have been someone else, Nārāyaṇa Bhaṭṭa being already advanced

in years at the time of compilation of the work.[1365] The name of Nārāyaṇa Bhaṭṭa is not mentioned anywhere in the *Ṭoḍarānanda*, but it is known for certain that at least one of its sections, the *Jyotiḥsaukhya*, was composed by Nīlakaṇṭha, son of Ananta.[1366]

Ṭoḍaramalla was the son of Bhagavatīdāsa,[1367] who died when his son was still very young. Ṭoḍara belonged to the Ṭaṇḍana clan, was a kṣatriya by caste, hailed from Oudh, and was born either at Laharpur or in Lahore at an unknown date. He is called Rājaṭoḍaramalla because he descended from the zamīndārs of Oudh.[1368]

Ṭoḍara joined the service of Akbar in 1573, rose to the position of vazīr or dīwān in 1582, and died in 1589.[1369]

Date

The *Ṭoḍarānanda* has been compiled during 1572–1589.[1370]

Trilocana Kavicandra

Trilocana Kavicandra, the father of Kavikaṇṭhahāra,[1371] was the author of a *Ratnāvalī*.[1372] He belongs, as does his son, to the sixteenth or seventeenth century.

Vaidyarāja

Vaidyarāja was the author of the *Rasarasārṇava* and *Sukhabodha*.[1373]

The *Rasarasārṇava*[1374] is a short treatise, probably mainly dealing with therapy; it also describes the examination of the pulse, the urine, and the eyes of the patient.[1375]

The *Sukhabodha*[1376] is a comprehensive work on therapeutics, written in a clear and easy style. The beginning, describing the descent of āyurveda, is inspired by the *Carakasaṃhitā*.

Sources mentioned at the end of the work are: Caraka, *Madanavinoda*, *Paribhāṣā*, *Rasadīpikā*, *Rasakalikā*, *Rasamañjarī*, *Rasaprayoga*, *Rasaratnākara*, *Rasendracintāmaṇi*, *Rasendrakalpadruma*, *Sārasaṃgraha*, Śārṅgadhara, Suśruta, Vāgbhaṭa, and Vaṅgasenaka.

Quoted in the body of the work are: the *Agnipurāṇa*, *Garuḍapurāṇa*, *Gopālasaṃhitā*,[1377] Rāvaṇa's *Kumāratantra*, Vāsudeva, Viṣṇu, and the *Sāralatikā*.[1378]

The author gives his genealogy at the beginning and end of his work. He was a son of Viśārada, son of Vaidyacintāmaṇi, son of Vaidyavācaspati, son of Yadunātha; he was a nephew of Ratnamaṇi.[1379] The *Sukhabodha* was completed in the year 1624 of an unspecified era, i.e., in 1567/68 or 1702/03.[1380]

Yaśaḥkīrti

Yaśaḥkīrti was the author of the *Jagatsundarīprayogamālā*,[1381] a work on therapy,[1382] written in 1,500 Prakrit verses (gāthā),[1383] arranged in forty-two or forty-three chapters.

The treatise is especially valuable for its description of fifteen yantras with rather unusual names: airāvaṇa-, bāṇagaṅgā-, bheruṇḍa-, gaṅgā-, gatapratyāgata-,

haṃsaśravā-, jaladurgabhayānaka-, mahā-, meghanādabhramaṇavarta-, pāṇḍavāmalī-, rājābhyudaya-, vāyu-, vidyādharavāpī-, vidyādharī-, and vidyādharīnṛtyayantra.[1384]

Yaśaḥkīrti was a Jain, and a pupil of Vimalakīrti, in his turn a pupil of Rāmakīrti, of the Bāgada saṅgha.[1385] He is usually placed in the sixteenth century.[1386]

Chapter 2
Seventeenth-century authors and works

The *Anūparudrākṣādiparīkṣā*

The *Anūparudrākṣādiparīkṣā* was written by a court poet at the instance of king Anūpasiṃha of Bīkāner (A.D. 1674–1709).[1]

Bharatamallika

Bharatamallika[2] was the author of two works on the genealogy of the Vaidya families of Bengal, the *Candraprabhā*[3] or *Vaidyakulapañjikā*,[4] and the *Ratnaprabhā*.[5] He also wrote two medical treatises, the *Ratnakaumudī*[6] and *Sārakaumudī*.[7]

Bharatamallika was a prolific author.[8] Apart from the works already mentioned, he wrote commentaries on the *Amarakoṣa*,[9] *Bhaṭṭikāvya*, *Kumārasaṃbhava*, *Raghuvaṃśa*, *Kirātārjunīya*, *Śiśupālavadha*, and Śrīharṣa's *Naiṣadhacarita*. He also commented on the *Meghadūta*, *Ghaṭakarpara*, *Nalodaya*, and *Gītagovinda*. His other works are the *Drutabodha* and its commentary, the *Drutabodhinī*,[10] on grammar, and a series of smaller treatises, the *Ekavarṇārthasaṃgraha*,[11] on monosyllabic homonyms, *Dvirūpadhvanisaṃgraha*,[12] on words of various spellings, *Upasargavṛtti*,[13] on the prepositions, *Sukhalekhana*,[14] on orthography, and *Kārakollāsa*,[15] on grammar.

The *Candraprabhā*[16] contains a wealth of details on the prominent Vaidya families of Bengal, including the author's own family.[17] Bharatamallika was already of advanced age during the period of its composition.[18] It was completed in 1675/76, as indicated by the author himself.[19]

The period of Bharatamallika's literary activity may be fixed as lying between 1650 and 1680.[20]

Bharatamallika was a son of Gaurāṅgamallika[21] and descended from the family of Vaidya Harihara Khān.[22] He belonged to the village Piṇḍira in the Hūglī district.[23] His forefathers lived in Śrīkhaṇḍa in the Bardvān division. Bharatamallika opened a school at Bhatrigrāma on the Ganges and taught a large number of students. His son was called Rāmacandramallika.[24] Bharatamallika was patronized by king Pratāpanārāyaṇa[25] of Bhūriśreṣṭha, who reigned in the second half of the seventeenth century.[26]

Bhāskara

Bhāskara,[27] son of the physician Āpājibhaṭṭa,[28] who was a resident of Benares (Kāśīkṣetra), grandson of Haribhaṭṭa, great-grandson of Puruṣottamabhaṭṭa of the Agni-

hotrī family and of Kāśyapagotra, who lived at Tryambakeśvarapura[29] in Mahārāṣṭra, father of Jayarāma,[30] composed a treatise on human anatomy in 110 verses, called *Śārīrapadminī*.[31] The work dates from 1678/79 and was provided with a commentary, called *Padminīprabodha*, by Vaidyanātha.[32]

Other works by Bhāskara are the *Padyāmṛtataraṅgiṇī*[33] (composed in 1676) and the *Smṛtiprakāśa*,[34] which is posterior to the *Śārīrapadminī* because it quotes from the latter.[35] Apart from the works already mentioned, Bhāskara wrote the *Adhyātmarāmāyaṇaprakāśa*,[36] *Bhāskaracaritra*,[37] *Gaṅgāstuti*,[38] *Lakṣmīstuti*,[39] *Paribhāṣābhāskara*,[40] *Śuddhiprakāśa*,[41] *Vṛttaratnākarasetu*,[42] and *Yaśavantabhāskara*.[43]

Cidghanānandanātha

Cidghanānandanātha may have been the author of a *Ṣaṭkarmasaṃgraha*, sometimes ascribed to a Rāghava or Raghuvīra. This treatise is described as a work aiming at a synthesis between pañcakarman and ṣaṭkarman.[44] Medicinal plants, as well as yogic practices, are prescribed by the author for a number of diseases. The work may date from the seventeenth century.[45]

Devīsiṃha

Devīsiṃha, son of Bharata or Hindupati, king of the Bundelā dynasty (seventeenth century), was the patron of Mohana Bhaṭṭa (author of the *Kaṃsavadhamahākāvya*),[46] the patron and disciple of Śivānanda Gosvāmin (author of the *Siṃhasiddhāntasindhu*),[47] and the patron of Durgādatta (author of the *Vṛttamuktāvalī*).[48] The medical (and astrological?)[49] work *Siṃhasudhānidhi* is ascribed to him; a *Pākaśāstra*, *Mallaśāstra* and *Śarīrasthānasaṃdoha* are probably sections of this treatise.[50]

Dharmavardhana

Dharmavardhana was the author of the *Ḍambhakriyā*,[51] a short treatise in twenty-one verses on cauterization (ḍambha), written in Hindī.

The diseases mentioned as to be treated by this method are: jvara, saṃnipāta, atisāra, saṃgrahaṇī, pāṇḍu, golā,[52] śūla, hṛdayaroga, śvāsa, kāsa, raktasrāva (haemorrhage), śīrṣaśūla, netraroga, unmādavāta, kaṭīvāta, śītāṅgatā, mṛgīvāta (= apasmāra), kampavāta, śopha, udara, jalodara, aṇḍavṛddhi, and dhanurvāta.

Authorities referred to in the introductory verses are Caraka and Vāgbhaṭa.

Dharmavardhana, a Jain monk of the Kharataragaccha, was a pupil of Vijayaharṣa. He was called Dharmasī (= Dharmasiṃha) before his ordination (dīkṣā) by Jinacandrasūri. Mahārāja Sujānasiṃha of Bīkāner bestowed honour on him.[53]

Gopāla

Gopāla was the author of a *Dravyaguṇa*,[54] composed in 1606, which quotes Cakrapāṇidatta's *Dravyaguṇa* and a Nārāyaṇa.[55]

Hastiruci

Hastiruci was the author of a short collection of formulae, the *Vaidyavallabha.*[56]

Contents

The treatise consists of about 250 verses[57] in eight chapters (vilāsa), each of which deals with a group of disorders. Chapter one contains recipes against fevers, chapter two against women's diseases, chapter three against various disorders, chapter four mainly against diseases of the urinary tract, chapter five mainly against diseases of the intestinal tract, chapter six against abdominal diseases, anaemia and jaundice, chapter seven mainly against diseases of eyes, ears, mouth and head, and chapter eight against bhūtas, pretas, poisons, and diverse disorders.[58]

Hastiruci frequently mentions his name at the end of the formulae as the one who devised them.[59] A small number of recipes is provided with a name.[60]

Sources are not referred to.[61]

(Hastiruci's) *Vaidyavallabha* was one of the sources of Pratāpasiṃha's *Amṛtasāgara.*

Special features

Interesting names[62] of disorders are: dhāturoga[63] in women (2.17); kapālakīṭaka, i.e., head lice (7.11); a kind of ulcer called nāsūra[64] (7.19); granthivāta (7.36); mallaviṣa (8.5); mṛgī as a term for apasmāra (8.22–23); vīryasrāva, i.e., involuntary loss of semen (8.25);[65] pādavraṇa (8.26); jānukampa (8.29).[66] Although snāyuka was known to Hastiruci (7.24–27), he did not include recipes against other diseases added by Vṛnda and later authors, such as vardhma, phiraṅgaroga, somaroga, masūrī and śītalā. Chapter two contains not only a number of formulae which promote fertility in women and counteract abortion, but also some abortifacients (2.18–23) and contraceptives (2.26–31). Medicines against the poisonous effects of opium (nāgaphenaviṣa; 8.6) and mercury (rasaviṣa; 8.9ab) form part of Hastiruci's collection.

The pharmaceutical preparations are mostly of the classical types, with a rather small proportion of rasas; some pākas are also found in the work (5.16; 7.1–5 and 30–34; 8.18–20). Noteworthy is the frequent prescription of ākallaka (4.23; 5.18; 6.3; 7.3 and 35; 8.18, 34 and 39) and opium (ahiphena or nāgaphena; 4.19 and 24; 5.3 and 4; 6.12 and 17; 7.17; 8.6, 27, 30 and 39).

Interesting items from the materia medica are: brahmadarbha (8.30);[67] gundī (7.24);[68] gundīvṛkṣa (8.25); jasada (8.30); jāśūsa (2.12 and 31); kāṅgaḍī (8.30); kārelī (1.26; 2.31; 8.24);[69] khairasāra (6.15); mājūphala (7.20); mastakī (8.30 and 39); meṇa (8.26); sābun (8.26); sūryakṣāra (4.16);[70] tila (8.26).[71] Honey, not allowed to Jains as an article of food, is freely prescribed in medicines by Hastiruci. The last recipe of the collection (8.38–40) is said to have been devised by Murādisāha.

A Sanskrit commentary on the *Vaidyavallabha* was written by the brāhmaṇa Meghabhaṭṭa of Gautamagotra in 1672/73. This Meghabhaṭṭa was a son of Nīlakaṇṭhabhaṭṭa, a grandson of Kṛṣṇabhaṭṭa, and a great-grandson of Nāgarabhaṭṭa.[72]

The author

Hastiruci is described as a member of the Tapāgaccha and a disciple of upādhyāya or mahopādhyāya Hitarucigaṇi[73] in the colophon at the end of two BORI MSS (Nrs. 281 and 282). He lived in Gujarāt.[74]

Date

Since one of the formulae of the *Vaidyavallabha* is ascribed to Murādisāha, we can infer that Hastiruci lived in the same period or later than Murād, the younger brother of Aurangzīb, who was beheaded in 1661.[75] This dating is confirmed by the colophon of one of the BORI MSS (Nr. 281), which states that the work was completed in 1670/71.[76]

Jagannātha

Jagannātha, son of Lakṣmaṇa of the Rāḍhā family,[77] was the author of a *Yogasaṃgraha,* composed in 1616.[78] This work refers to Rāvaṇa's *Bālatantra,* i.e., the *Kumāratantra.*[79]

Jayaratna(maṇi)

Jayaratna[80] or Jayaratnamaṇi[81] was the author of a monograph on fevers called *Jvaraparājaya.*

The work, consisting of 439 verses, deals, after some introductory stanzas (1–7), with the vessels of the body (śirāprakaraṇa; 8–16), the doṣas (16–51), the origin of fevers (jvarotpattiprakaraṇa; 52–121), the different kinds of fever (122–156)[82] and their therapy (157–224), clysters (bastikarmādhikāra; 225–369), substances which are salutary or insalutary in fevers (pathyāpathyādhikāra; 370–389), the saṃnipāta fevers (390–431), and the offering called pūrṇāhuti[83] (432–439).[84]

Authorities referred to by the author are: Aṅgada,[85] Ātreya, Bhela, Caraka, Hārīta, Mādhava, Nāgasiṃha,[86] Pālakāpya, Pārāśara, Soḍhala, Suśruta, Tīsaṭa, Vāgbhaṭa, and Vṛnda.[87] Cāmuṇḍa's *Jvaratimirabhāskara* is quoted by Jayaratna.[88]

The *Jvaraparājaya* is quoted in Karandīkar's *Nidānadīpikā.*

Jayaratna, a Śvetāmbara Jain,[89] was a pupil of Bhāvaratna.[90] He wrote his work in Tryaṃbāvatī.[91]

The *Jvaraparājaya* was composed in the year 1605/06.[92]

Kāśīnātha

Kāśīnātha was the author of a short monograph on indigestion called *Ajīrṇamañjarī, Amṛtamañjarī,* or *Ajīrṇāmṛtamañjarī.*[93]

Contents

The treatise consists of sixty verses.[94] Verses 1–2 describe the four varieties of ajīrṇa distinguished by Suśruta,[95] verse 3 is about the general treatment, and verses 4–5

mention the number of days for ajīrṇa, caused by specified articles of diet, to disappear spontaneously.[96] Verses 6–47 deal with ajīrṇa brought about by a variety of substances and its treatment by means of countermeasures. The verses which follow are devoted to the alleviation of discomforts as a consequence of particular medical treatments[97] and by the overuse of caustic lime (cūrṇaka) in betel quids (48–52), the prevention of inconveniences resulting from the intake of alcoholic drinks (53–54), the treatment of intoxication by kodrava (55) and betel nuts (pūga; 56), the preparation of vasavāra and sūkta[98] (57–58), and the usefulness of the latter substance in indigestion by āma (59).

The *Ajīrṇamañjarī* is one of the sources of the *Pāradasaṃhitā*; it is quoted in the prakīrṇaka pariśiṣṭa of the *Ānandakanda*, the *Rasakāmadhenu*, and the *Rasayogasāgara*.

Commentaries on the *Ajīrṇamañjarī* were written by Rājānaka Bhagavanta,[99] Ramanātha Vaidya,[100] and Bāladeva.[101]

Date

The lower limit of the age in which Kāśīnātha lived is provided by MSS dating from 1618,[102] 1676/77[103] and 1694/95.[104]

Kāśīnātha

Kāśīnātha, son of Śaṃkara and Rohiṇī, was the author of the *Kāśīnāthapaddhati*, also called *Vaidyakapaddhati* and *Āyurvedasāra*.[105] The treatise deals with all aspects of medicine: weights and measures, the examination of the pulse, the preparation of medicines, kālajñāna, the aetiology, symptomatology and treatment of diseases, emetics and purgatives, and, finally, the purification of metals, etc.[106]

The work dates from A.D. 1665/66,[107] which implies that the author is different from the Kāśīnātha of the *Ajīrṇamañjarī*.

The *Kāśīnāthapaddhati* was one of the sources of the *Amṛtasāgara*.

Kavicandra

Kavicandra, son of Kavikarṇapūra and Kauśalyā, grandson of Vidyāviśārada (a vaidya of Sudhīra on the banks of the Ganges) of the Datta lineage, and the father of Kavibhūṣaṇa and Kavivallabha,[108] was the author of the *Cikitsāratnāvalī* or *Ratnāvalī*, written in Dīrghāṅgī or Dīrghāṅganagara[109] near Vaidyavatī on the Ganges in A.D. 1660/61. Although he does not mention by name any authority, Kavicandra has freely copied Caraka in the introduction, while later on, in the description of the diseases, he has followed Mādhava's *Rugviniścaya* from beginning to end.[110]

Kṛṣṇānanda Vidyāvāgīśa

Kṛṣṇānanda Vidyāvāgīśa, also called Śrīkṛṣṇavidyāvāgīśabhaṭṭācārya, was the author of the *Ṣaṭkarmadīpikā*.[111]

Contents

The work is a Tantric treatise on ṣaṭkarman in about 1,000 verses, arranged in nine chapters (uddeśa). It is written in the form of a dialogue between Śiva and Pārvatī.

The titles of the chapters are: (1) sāmānyadharma, general observances; (2) kuṇḍādiniyama, general prescriptions on fire sacrifices, etc.; (3) nānāprakāraśāntiniyama, the attainment of śānti, especially the preservation of health and the cure of diseases; (4) vaśyakarman, subjugation; (5–6) stambhanakarman, immobilization; (7) ākarṣaṇa, attraction, and vidveṣa, the sowing of dissension; (8) uccāṭanavidhi, eradication; (9) māraṇa, the killing of adversaries.

It is remarkable that not only chapter three, but also the series of chapters from three up to nine, are said to belong to a śāntikalpa. Chapter three contains verses on Tantric procedures aiming at curing several diseases, among which fever holds a prominent place; *Ātharvaṇa*, Garga, Hārīta, and the *Tantrarāja* are quoted on the subject of fevers.

The *Ṣaṭkarmadīpikā* has all the characteristics of a compilation and refers to a large number of mainly Tantric and Purāṇic sources by name.[112]

The author and his date

Kṛṣṇānanda Vidyāvāgīśa, a famous Tantric scholar,[113] who also wrote the *Tantrasāra*,[114] was a Varendra brāhmaṇa who lived in Navadvīpa.[115] His works may have been composed in the seventeenth century.[116]

Lakṣmīkuśala

Lakṣmīkuśala was the author of the *Vaidyakasāraratnaprakāśa*, written in Gujarātī verse (caupāī). Sources mentioned are the *Ātreyanidāna* and *Suśrutasāra*.

Lakṣmīkuśala was a pupil of Jinakuśala of the Tapāgaccha. He completed his treatise in A.D. 1637 and lived in a village called Oḍā near Īḍar in Rāyadeśa.[117]

Mādhava

Mādhava, son of Harirāma and grandson of Gopajita of Vaṭapaṭṭana,[118] a Śrīgauḍa brāhmaṇa from Gujarāt, composed his short *Yogasamuccaya* in the seventeenth century.[119]

Mahimasamudra

Mahimasamudra, called Jinasamudra before his dīkṣā, wrote, in Rājasthānī verse (caupāī), the *Vaidyakacintāmaṇi*, also called *Vaidyakasāroddhāra* and *Samudra(prakāśa)siddhānta*. This work deals with nidāna and cikitsā.

Sources mentioned are Ātreya, Caraka, Śārṅgadhara, Suśruta, Vāgbhaṭa, and *Yogaśataka*.

Mahimasamudra was a Śvetāmbara Jain monk who succeeded Jinacandrasūri as an ācārya. He also wrote a commentary on Bhartṛhari's *Vairāgyaśataka* and a play, called *Tattvaprabodhanāṭaka*. He lived in the second half of the seventeenth century.[120]

Mānakavi

Mānakavi, also called Kavimāna and Mānamuni, was the author of the *Kavipramoda* and *Kavivinoda*,[121] two medical treatises written in Rājasthānī. A *Vaidyakasārasaṃgraha* by the same author is also recorded.[122]

The *Kavipramoda*[123] is a large work in 2,944 verses (caupāī, dohā), arranged in nine chapters (uddeśa).

Authorities referred to are Ātreya, Bheḍa, Caraka, Kharanāda, Suśruta, and Vāgbhaṭa.

The *Kavivinoda*, also written in verse (caupāī, dohā, etc.), is divided into two parts (khaṇḍa). The first part deals with recipes of various types (kaṣāya, cūrṇa, guṭī, etc.), the second part with fevers and their treatment.[124]

Mānakavi[125] was a pupil of Sumatisumerugaṇi, pupil of Bhaṭṭāraka Jinacandrasūri of the Kharataragaccha.[126] Another teacher of Mānakavi was Vinayamerugaṇi,[127] brother of Sumatisumeru.

Mānakavi lived in Bīkāner.

The *Kavivinoda* was completed in A.D. 1688, the *Kavipramoda* in A.D. 1689.

Maṇirāmamiśra

Maṇirāmamiśra, son of Vasanta, was the author of the *Vṛttaratnāvalī*, a short medical treatise written in 1641 or 1642,[128] and the *Guṇaratnamālā*, written in 1642.[129] A commentary, called *Vṛttaratnāvalīcandrikā*, on the former work was written by Kālikā- or Kālīprasāda.[130]

Mevārāmamiśra

Mevārāmamiśra was the author of the *Vaidyakaustubha*,[131] a medical citrakāvya,[132] written in ingenious verses[133] in various, usually long metres, which are addressed to a beloved woman who is celebrated in high-flown language.[134]

Contents

The *Vaidyakaustubha*[135] consists of about 1,200 verses arranged in sixteen chapters (sarga), which chiefly deal with therapy and to a lesser extent with nidāna. General subjects are absent, apart from vamana and virecana. Three chapters are devoted to alchemical procedures and formulae of rasas.

The order of the diseases is largely in agreement with the *Mādhavanidāna*. Their order diverges with respect to the position of udara, pariṇāmaśūla, amlapitta and vātarakta; a number of diseases has been omitted altogether, e.g., svarabheda, arocaka, pānātyaya, udāvarta, gulma, ślīpada, upadaṃśa, and śūkaroga.[136] In a considerable number of cases the etiology of a disease, its symptoms, or both, are not described and prescriptions are given only. In some rare cases the nidāna verses are borrowed

from the *Mādhavanidāna*.[137] A conspicuous feature is the enumeration of the number of complications (upadrava).[138]

Chapters one to eleven are devoted to the diseases and their treatment along āyurvedic lines. Chapter twelve deals with vamana and virecana, chapter thirteen with the purification, etc., of the dhātus and upadhātus, chapter fourteen with the same type of procedures applied to mercury. Chapter fifteen, by far the longest, contains formulae of rasas against many diseases which are arranged again along the lines of the *Mādhavanidāna*. Chapter sixteen deals with vājīkaraṇa and rasāyana.

Sources referred to by Mevārāma are Caraka (1.1), the *Vṛddhatrayī* (16.88), and a work on karmavipāka (14.72).

Special features

Noteworthy among the diseases mentioned are mūtrarakta (7.4), phiraṅga (7.95–102), somaroga (9.10), mūtrātisāra (9.12), and seven types of śītalā (bṛhatī, kodravā, pāṇisahā, sarṣapikā, rājikā, lohitamaṇḍalā, carmajā; 10.43–48).[139] Interesting substances from Mevārāma's materia medica are ākārakarabha (7.95 and 99), dvīpāntaravacā (7.102), rasakarpūra (14.35; 16.9), and a list of divyauṣadhis (14.13–22).

The divyauṣadhis enumerated are: abhayā, ahidamanī, ahivilocanikā, ajagandha, ākhukarṇī, akṣī, ambaravallarī, aṅkola, aparākhyā, ārdra, aruṇikā, asitahema, aśmanta, badarikā, bāhlīka, bahupuṭa, bākucī, balā, bali, bhekā, bhekaparṇī, bhujaṅgamalatā, bimbī, brāhmī, bṛhatī, cakramarda, caṇḍālinī, cāṅgerikā, chilihiṇḍa, daṇḍī, devadālī, dhenusurasā (v.l. dhenurasanā), dhūmasāra, gajakarṇikā, gavākṣī, ghana, ghanarava, girikarṇikā, guñjā, halinī, haṃsāṅghri, harinakhī, hastiśuṇḍī, hemavallī, hutabhugdamanī, hutāśa, jātī, jatu, jhaṣā, jīvantikā, jvalanagarbha, kākajaṅghā, kākavadanā, kālī, kamalacāriṇikā, kaṇā, kāñcanikā, kaṅgunikā, kañcukī, kapi, karavīra, kāravellī, karkoṭikā, karpāsa, kāśmarī, khaṭī, kokilākṣa, kośātakī, kṛṣṇatulasī, kṣapāpatilatā, kṣāra, kṣava, kṣīrakanda, kṣīrāṅghripa, kukkurī, kumārī, kuntī, lajjāvatī, lavalī, madhu, mayūrakaśikhā, mṛgatṛṇa, muṇḍī, murā, mūrvā, musalī, nāgārjunī, navasādara, nīlāhvayā, nimbarājī, nimbuka, palāśa, parṇīdvaya, paṭu (mentioned twice), pīluka, pīyūṣavajra(?), puṅkhā, puṣkaramūla, rajanī, rambhā, rasonaka, rāṣṭrī, ravi, ravivartikā, rudantī, ruvūka, śākāṅghripa, śaṅkhapuṣpī, sarṣapa, śatapadī, sehuṇḍa, śigru, śikhi(n), sinduka, sitavibhākara, sṛkka, śṛṅga, śṛṅgī, sūraṇa, suvarṇakusuma, taurī, tejovatī, tilaparṇī, toyakalaśī, trikaṇṭaka, tripattrī, tumbī, ūrṇā, vajrakanda, vaṭāṅghri, vidārī, vijayā, vipina, viṣa, viṣamuṣṭika, viṣṇukrāntā, viśvā, vṛṣa, yakṣanayanā, and yavanamūlaka.[140]

The author

Mevārāmamiśra mentions his name at the end of the *Vaidyakaustubha* (16.87), adding that he lived in Śūkarakṣetra.[141]

Date

Since it is very probable that Mevārāma was acquainted with the medical citrakāvyas of Lolimbarāja,[142] he can be assigned to the second half of the seventeenth century.

Mitramiśra

Mitramiśra, son of Paraśurāmapaṇḍita and grandson of Haṃsapaṇḍita,[143] wrote under the auspices of Vīrasiṃha, son of Madhukarasāha, grandson of Pratāparudra,[144] the *Vīramitrodaya*,[145] a very large work on dharmaśāstra, composed between 1610 and 1640. Parts of the *Lakṣaṇaprakāśa* of this encyclopaedia deal with subjects of medical interest such as the parts of the human body[146] and the qualities of a physician.[147] The chapters on gaja- and aśvalakṣaṇa of the same section are about elephants, respectively horses.[148]

Nāgeśabhaṭṭa

Nāgeśabhaṭṭa wrote, in the seventeenth or eighteenth century, the *Mañjūṣāśekhara*.[149]

Praharāja or Yogipraharāja

Praharāja or Yogipraharāja was the author of the *Vaidyālaṃkāra* and the *Vaidyahṛdayānanda*.[150]

The *Vaidyahṛdayānanda*[151] is a work of 268 verses in diverse metres, arranged in five chapters (prakāśa). It is written in the form of a dialogue between husband and wife, the latter being addressed in a flowery style reminiscent of the works of Lolimbarāja and Hastiruci.

Contents

Chapter one (eighty-one verses) begins with a maṅgala in praise of Kṛṣṇa, and deals, after an introduction and some verses on general subjects, with the treatment of fevers (14–81). Chapters two to four are about the treatment of other diseases. Chapter five describes a number of rasayogas against various disorders and for vājīkaraṇa purposes.

The order of the diseases disagrees with the scheme of the *Mādhavanidāna*. Chapter two is concerned with atisāra, grahaṇī, arśas, agnimāndya, gulma-plīhan, udara, kṛmi, śūla, hṛdroga, udāvarta, vṛddhi, vidradhi, and ślīpada. The subjects of chapter three are kāsa, śvāsa, hikkā, svarabheda, raktapitta, kṣaya, pāṇḍuroga, śotha, vātaroga, vātarakta, ūrustambha, āmavāta, prameha, somaroga, sthaulya-kārśya, mūtrakṛcchra, mūtrāghāta, and aśmarī. Chapter four describes the treatment of arocaka, chardi, tṛṣṇā, mūrchā, madātyaya, dāha, amlapitta, unmāda, apasmāra, kuṣṭha, śītapitta, visphoṭa, masūrī, vraṇa, viṣa, bhagandara, upadaṃśa, galagaṇḍa, pādaroga, nakharoga, oṣṭharoga, kṣudraroga, nāsāroga, mukharoga, karṇaroga, netraroga, śiroroga, pradara, puṣparodha, garbhiṇīroga, garbhacalana, mūḍhagarbha, sūtikāroga, and bālaroga.

The materia medica presents no noteworthy features.

Paying homage to Kṛṣṇa is recommended a number of times (2.16 and 30; 3.17) as a therapeutical measure.

The only authority referred to is Caraka (2.4).

Special features

The chapter on fevers mentions a dāhajvara separately (1.24–27).[152] Chapter two contains recipes against śothātisāra (2.12) and chardyatisāra (2.13). The only type of mūtrāghāta referred to in chapter three is uṣṇavāta (3.43). Chapter four mentions a small number of kṣudrarogas (4.35–36); it contains a formula against amenorrhoea (puṣparodha).

Some diseases are absent: visarpa, śūkadoṣa, yonivyāpad, and yonikanda; vardhma, śītalā, and phiraṅga are neither referred to.

The *Vaidyahṛdayānanda* mentions a nose-ornament (nāsābhūṣāmaṇi); P.K. Gode regarded it as the nose-stud, which, in his opinion, is a typical ornament of South Indian ladies, as contrasted with the elaborate nath of the ladies of Mahārāṣṭra; he concluded that the author hailed from South India.[153] D.C. Sircar objected to this view, asserting that nose-studs are popular among all classes of women in Eastern India.[154]

The author

Yogipraharāja[155] was a son of Nīlakaṇṭha of Vatsa gotra, also called Jamadagnideva, who was an astrologer (jyautiṣa) and the preceptor of the chief queen of king Vikrama of Nandapura.[156] He was an expert in many sciences.[157]

Date

P.K. Gode suggested that the *Vaidyahṛdayānanda* has been written after A.D. 1550; his argument was that the expression anaṅgaraṅgapravīṇa (one proficient in anaṅgaraṅga) refers to Kalyāṇamalla's *Anaṅgaraṅga*, a work on the science of love, assigned by some to the closing decades of the fifteenth century. D.C. Sircar objected that Gode's interpretation is open to doubt because the expression mentioned may simply mean 'someone proficient in the art of love'; moreover, the date of Kalyāṇamalla is disputed.

King Vikrama of Nandapura has been identified by D.C. Sircar[158] as Vikrama I of Jayapura[159] in Orissa,[160] who ruled in the third quarter of the seventeenth century. Yogipraharāja can therefore be assigned to the second half of that century.[161]

Raghunātha

Raghunātha was the author of the *Bhojanakutūhala*,[162] a large work in verse, interspersed with glosses and explanatory prose passages, on dietetics and related subjects. It consists of three sections (pariccheda), the first of which has been edited.[163]

Contents

Section one, called dravyaguṇāguṇakathana, deals with grain and pulse (2–25), prepared dishes (siddhānna; 25–58), vegetables, fruits, and condiments (58–121), sugar (122), refreshing drinks (pānaka; 122–123), kāñjika (123–124), milk and other dairy products (125–151), oils (151–155), products of the sugarcane (155–165), honey (165–167), alcoholic beverages (168–169), meat and fish (169–176), water (176–195), poisoned food (196–197), articles of food that should not be taken together (viruddhadravya; 197–199), healthy and harmful foods (pathyāpathya; 199–212),

articles of food that should not be mixed together (saṃyogaviruddha; 212–214), vessels for food (214–215), and miscellaneous subjects (bhojanavidhi, tāmbūlavidhi, ointments for the body, clothing; 215–230). The vernacular names of plants, dishes, etc., are added to the Sanskrit text;[164] many countries are mentioned in the glosses,[165] as well as the names of many rivers in the body of the text (180–183).[166]

Sources referred to in section one are: *Abhidhāna* (22; 27; 68; 74), *Bhāvaprakāśa* (2; 8; 58), Bhoja (55; 145), Caraka (62), *Dhanvantarinighaṇṭu* (76),[167] Haimana (30; 51; 162),[168] *Hṛdayadīpa* (29; 52; 57), *Janārdanamahodaya* (58),[169] Keyadeva (58; 161; 162), *Kriyāsāra* (28),[170] *Nighaṇṭu* (many times),[171] *Nighaṇṭurāja* (1), *Pārijāta* (14; 16; 31),[172] *Prayogapārijāta* (7; 74),[173] *Rājanighaṇṭu* (3; 4; 5; 7; 155),[174] Suṣeṇa (7; 21; 32; 44; 142; 143; 146; 156; 175; 228), Suśruta (55; 163), Vāgbhaṭa (many times), *Viṣṇupurāṇa* (226), and *Vṛddhasuśruta* (186).

Section two treats of ritually unclean articles of food, the Vaiśvadeva offering, and the feeding of guests. Section three, called vibhāvarīvilāsa, is concerned with furniture and similar accessories, the physical and spiritual effects produced by different items of that description, and with a number of miscellaneous subjects.[175]

Section two quotes many works on dharmaśāstra, a number of purāṇas, and various other treatises; some of the authorities quoted are: Aṅgiras,[176] Aparārka,[177] Āpastamba,[178] Āśvalāyana, *Aśvamedhika*,[179] Baudhāyana,[180] *Bhāvaprakāśa*, *Bhaviṣya*, *Bhaviṣyapurāṇa*, Bhṛgu, *Brāhma*, *Brahmapurāṇa*, *Bṛhadyama*,[181] Bṛhaspati,[182] *Candrikā*, *Caturviṃśatimata*,[183] Devala,[184] *Dharmasāra*,[185] *Dharmasārasudhānidhi*,[186] Gārgya,[187] Gautama,[188] Gobhila, Hārīta,[189] Hemādri, Kaśyapa,[190] Kātyāyana,[191] *Kūrmapurāṇa*, *Madanaratna*,[192] Mādhava, Mādhavīya Vyāsa,[193] Manu, *Mārkaṇḍeyapurāṇa*, *Mitākṣarā*, Paiṭhīnasi,[194] Pārāśara,[195] *Pārijāta*,[196] Pracetas,[197] *Prayogapārijāta*, Pulastya,[198] Ṛṣyaśṛṅga,[199] *Saṃgraha*,[200] *Saṃvarta*,[201] Śaṅkhalikhita,[202] Śātātapa,[203] *Ṣaṭtriṃśamata*,[204] Śaunaka, *Skānda*, *Smṛtiratnāvali*,[205] *Smṛtisaṃgraha*,[206] *Smṛtyarthasāra*,[207] Śūlapāṇi,[208] Suśruta, *Taittirīyakaśruti*, Uśanas,[209] Vasiṣṭha,[210] Vijñāneśvara, Viṣṇu, *Viṣṇupurāṇa*, *Vṛddhātreya*, *Vṛddhayājñavalkya*, Vyāsa,[211] Yājñavalkya,[212] Yama,[213] and Yogīśvara.

Section three quotes Āśvalāyana, Baudhāyana, Bhṛgu, *Brahmapurāṇa*, Bṛhaspati, *Candrikā*, Caraka, Devala, Devarāta,[214] *Dharmasāra*,[215] *Gāruḍa*, Gautama, Hariścandra, *Harivaṃśa*, *Kārikābhāṣya*, *Kāśīkāṇḍa*, Kāśyapa, (Vaidya) Kātyāyana, *Mādhavīya*,[216] Manu, Mārkaṇḍeya, *Mārkaṇḍeyapurāṇa*, Nārada,[217] *Nārāyaṇadāsanibandha*,[218] Nṛsiṃha, *Pañcasāyaka*, Pārāśara, *Paraśurāmapratāpa*, *Pārijāta*, Pracetas, *Prayogapārijāta*, *Ratirahasya*, *Ratnamālā*, *Sahyādrikhaṇḍa*,[219] *Saṃgraha*, *Sāmudratilaka*,[220] Śaṅkha, Śaṅkhalikhita, Śātātapa, Śaunaka, *Śivarahasya*,[221] Skandha, *Smṛtiratnāvalī*, Śrīpati,[222] *Strīlakṣaṇa*, Suśruta, *Svapnādhyāya*,[223] Vāgbhaṭa, Vasiṣṭha, *Vijñāneśvarīya*, Viṣṇu, *Vṛddhapārāśara*, Vyāsa, Yājñavalkya, Yama, and Yogayājñavalkya.[224]

The *Bhojanakutūhala* is quoted in Dattarāma's *Caryācandrodaya* and the *Bṛhannighaṇṭuratnākara*. A *Kutūhala* is quoted in Ananta's *Pratāpakalpadruma*.

Special features

Four kinds of yāvanāla are described (9); four kinds of kaṅgu (19); cīnāka is different from kaṅgu (19); numerous prepared dishes (siddhānna) are described (25–58); ten types of vegetables (58)[225] instead of the more usual six; a śvetasūraṇaka (61); several types of ālu: mukhālu, piṇḍālu, raktapiṇḍāluka, kāsālu, phoḍālu, pānīyālu, nīlālu (62); three kinds of cillī (66); two types of jharasī (68); a dvīpāntaracakramarda (72); two types of golomikā (73); two types of agastya (74) instead of the six of the *Rājanighaṇṭu*; three types of kośātakī: kośātakī, rājakośātakī, śirākośātakī (80–81); three types of vṛntāka: vṛntāka, nīlavṛntāka,[226] śvetavṛntāka (87); phāṃpaṭa (99);[227] sītāphala (103);[228] vātakumbha (105);[229] kāsārākhyaphala (114);[230] substances that can or cannot be mixed with milk (134–135); substances which can alleviate particular types of ajīrṇa (203–211).

The author

Raghunātha[231] was the son of Gaṇeśabhaṭṭa, grandson of Raghunātha, and great-grandson of Hariharabhaṭṭa. Raghunātha belonged to the Vasiṣṭha gotra and to the Karhāḍe brāhmaṇas[232] among the Mahrāṭṭas. His family surname was Navahasta and his family deity Viṣṇu. His guru was Anantadeva, son of Āpadeva, grandson of Anantadeva. Anantadeva, who lived between 1625 and 1675, was a descendant of the Mahrāṭṭa saint Ekanātha.[233] He was a versatile scholar and prolific writer.[234] Anantadeva's father, Āpadeva, was the author of the *Mīmāṃsānyāyaprakāśa*.[235]

Raghunātha was intimately associated with the Mahrāṭṭa saint Rāmadāsa (A.D. 1608–1681),[236] the preceptor of Śivājī.[237] He was for a long time (about 1648–1683) in charge of the temple of Raghupati, the headquarters of Rāmadāsa at Chaphal in the Sātārā district, lying on the Man, a tributary of the river Kṛṣṇā. After Śivājī's death (1680) he seems to have settled in Tanjore, where a Mahrāṭṭa kingdom had been established about 1678 by Ekojī Bhosala,[238] the step-brother of Śivājī. Raghunātha speaks of Dīpāmbikā, also called Dīpābāī, Ekojī's queen, as his patroness.

Apart from the *Bhojanakutūhala*, Raghunātha wrote the following works in Sanskrit: *Cāturmāsyaprayoga*,[239] *Dharmāmṛtamahodadhi*,[240] *Janārdanamahodaya*,[241] *Kāśīmīmāṃsā*,[242] *Prāyaścittakutūhala*,[243] *Prayogaratnabhūṣā*,[244] and *Sāhityakutūhala*. In Marāṭhī he wrote: *Govardhanoddhāraṇa*, *Narakavarṇana*, and *Strīdharma*.[245]

Date

The literary activity of Raghunātha may be assigned to the period 1675–1712. A MS of the *Prayogaratnabhūṣā* was completed in 1678 and a MS of the *Bhojanakutūhala* dates from about 1681/82. The *Dharmāmṛtamahodadhi* was completed in 1701 and the *Narakavarṇana* between 1701 and 1712.[246]

Raghunātha Paṇḍita

Raghunātha Paṇḍita was the author of (1) *Cikitsāmañjarī*, (2) *Nāḍījñānavidhi*,[247] and (3) *Vaidyavilāsa*.

(1) The *Cikitsāmañjarī*[248] is a therapeutic treatise in 428 skillful verses,[249] arranged in seven chapters (kusuma). The order of the diseases agrees in large measure with the

Mādhavanidāna. The author added verses on emetics (6.93–95) and purgatives (6.96–601), aphrodisiacs (vājīkaraṇa and kāmoddīpana; 6.102–108), rasāyana (7.1–70), and anupāna (7.71–73). The materia medica is of an āyurvedic type, except for the thirty-two rasayogas described in the section on rasāyana of chapter seven.

Authorities referred to are Ātreya (1.2),[250] Caraka (7.1),[251] Suśruta (1.2), and Vāgbhaṭa (1.2). Raghunātha's *Cikitsāmañjarī* shows clearly traces of the influence of Lolimbarāja's *Vaidyajīvana*.[252] The author frequently refers to himself,[253] often in a self-eulogistic way.[254]

Some diseases or groups of diseases are not separately dealt with: svarabheda, mūrchā, pānātyaya, dāha, unmāda, apasmāra, vātavyādhi, bhagna, nāḍīvraṇa, upadaṃśa, śūkadoṣa, masūrikā, and kṣudraroga. A children's disease added is phullikā (6.84) or utphullikā (6.80). The substantive vār is used in the sense of vāri (water).[255] Some noteworthy drugs prescribed are akalla (6.18), hirākaśī (6.31),[256] kabāba (6.4), kokamba (6.41),[257] mārkaṇḍī (1.62; 6.96),[258] māyāphala (6.31), śīrṣataila[259] (5.38, 39, 48, 49), and vāviḍaṅga (3.4).[260] [261]

Two rasas (śvāsakuṭhāra, 7.30–32; vaṅgeśvara, 7.37–39) are said to have been used by the author himself.

(3) The *Vaidyavilāsa*[262] is a therapeutic treatise in verses[263] of various metres,[264] arranged in ten chapters (taraṅga). The first seven chapters repeat almost verbatim the contents of the *Cikitsāmañjarī*, with numerous additions, a few omissions, and occasionally a different order. Chapter eight deals with the purification (śodhana) and killing (māraṇa) of the metals and with other subjects belonging to rasaśāstra. Zinc (yaśada) is absent among the metals and replaced by ārakūṭa (a kind of brass). A disease, called strīprameha, probably identical with somaroga, is mentioned. Chapter nine describes the thirty-two rasas of chapter seven of the *Cikitsāmañjarī*, plus seventeen additional ones. Chapter ten is concerned with the examination of the pulse and of the urine, as well as with the messenger sent to the physician, the characteristics of a good physician, the examination of the patient, and, finally, weights and measures. The eulogistic epithets conferred on the author himself, which are frequent in the *Cikitsāmañjarī*, are absent from the *Vaidyavilāsa*.[265] The contents of the *Vaidyavilāsa* prove that it is an expanded and improved version of the *Cikitsāmañjarī*.[266]

The *Vaidyavilāsa* is quoted in Jñārasarāmaśarman's *Anupānadarpaṇa*, the *Pākamārtaṇḍa*, *Rasāyanasaṃgraha*, *Rasayogasāgara*, and *Yogaratnākara*.

The author and his date

Apart from the three medical works, Raghunātha Paṇḍita wrote a work on poetics, the *Kavikaustubha*,[267] and two treatises on metrics, the *Chandoratnāvali*[268] and *Vṛttasiddhāntamañjarī*.[269] He also composed four poems in Marāṭhī, the *Damayantīsvayaṃvara*,[270] *Gajendramokṣa*,[271] and *Rāmadāsavarṇana*,[272] as well as a metrical Marāṭhī version of Jagannāthapaṇḍita's *Gaṅgālaharī*.[273]

Raghunātha,[274] who hailed from a family surnamed Manohara,[275] was the son of Bhikaṃbhaṭṭa and grandson of Kṛṣṇapaṇḍita.[276] His place of residence was Campā[277] or Campāvatī.[278] The author adds the following geographical details on the location of this town: "There is a fort (sthāna) named Kollāgiri; on its east lies the town Campāvatī, next to it is the family goddess Mahālakṣmī".[279] Campā(vatī) has been identified as Caul in the Alibag Talook of the Kolaba district of Mahārāṣṭra,[280] which is situated about a mile or two east of the famous fortress of Koralai (Kollāgiri) and has on its eastern border a hillock with a temple dedicated to Mahālakṣmī. Some branches of the Manohara family still live at Caul and worship Mahālakṣmī as their family goddess.[281]

The identity of Raghunātha Paṇḍita with one of several persons called thus has long been a vexed problem and several theories have been developed, which are elaborately discussed by S.L. Katre.[282] Raghunātha's life history has been sketched by the latter. He was born about 1640 and spent his early years in Caul. Probably he went to Benares in order to complete his studies. After returning to Caul for some time, he left that city to seek his fortune elsewhere. He may have met Śivājī in the course of his wanderings and settled finally at the court of Ekojī (1676–1683) in Tanjore about 1675. In Tanjore he came in close contact with distinguished visitors, like saint Rāmadāsa and the Marāṭhī poet Ānandatanaya.[283] Most of his works, with the exception of the *Gaṅgālaharīṭīkā*, probably composed during his stay at Benares, date from the period 1675–1711. The three medical treatises are from the year 1697[284] and belong therefore to the period of Ekojī's successor, Śāhajī II (1683–1711). Raghunātha probably died at Tanjore about 1720 or somewhat later.

Rājīvalocana Dhanvantari

Rājīvalocana Dhanvantari, son of mahopādhyāya Vaidyakaṇṭhābharaṇa and Śrīmatī, was the author of the *Siddhayogārṇava*[285] and a *Ratnāvalī*.[286]

The *Siddhayogārṇava* is a work on therapy in ten chapters (upadeśa).[287] The treatise begins with the descent (avatāra) of āyurveda to earth, according to the story told in the *Carakasaṃhitā*. The titles of the ten chapters are: cikitsāṅga, nānāvidhajvaracikitsita, jvarātīsārādicikitsita, krimyādicikitsita, vātavyādhyādicikitsita, amlapittādinivāraṇa, pradarādinivāraṇa, rasāyanādivijñāna, snehaprakriyādivijñāna, and rasādiśuddhyādivijñāna.[288]

Rāma Bhaṭṭa Hosiṅga

Rāma Bhaṭṭa Hosiṅga, son of Bhavānī and Viśvanātha, wrote at the instance of king Anūpasiṃha of Bīkāner (1674–1709)[289] the *Amṛtamañjarī*, a work on toxicology in 350 granthas. A *Cikitsāmālatīmālā* in 4,000 granthas, composed by a paṇḍit of Paraśurāmakula at the request of Rāma Bhaṭṭa Hosiṅga, is mentioned by the latter as one of his own works in his *Dānaratnākara*, which also refers to the *Amṛtamañjarī*.[290]

Rāmacandra Paṇḍita

Rāmacandra Paṇḍita[291] was the author of the *Rāmavinoda*[292] and *Vaidyavinoda*. He also wrote some kāvyas and a *Sāmudrikabhāṣā*. All these works were composed in Rā-

jasthānī.[293]

The *Rāmavinoda*[294] consists of 1,981 verses (caupāī, dohā, soraṭha), arranged in seven chapters (samuddeśa). Some of the subjects dealt with are:[295] puruṣalakṣaṇa, śārīra, sādhyāsādhyalakṣaṇa, mūtraparīkṣā, pittakaphavāyuhetu, the nidāna and treatment of several diseases.

Fever is classified into ten types: ajīrṇa-, āhāra-, pitta-, kheda-, vāyu-, dṛṣṭi-, kāla-, rakta-, kapha-, and ekāhikajvara (together with anyedyuṣka-, tṛtīyaka-, and caturthakajvara); hāridraka- and saṃtatajvara are also mentioned.

The *Rāmavinoda* ends with two additions to the text: a *Nāḍīparīkṣā* (45 verses) and *Mānapramāṇa* (13 verses).

Sources referred to are: Ātreya, *Carakasaṃhitā*, *Mādhavanidāna*, *Rājamārtaṇḍa*, *Rasacintāmaṇi*, *Rasaratnākara*, Śārṅgadhara, *Suśrutasaṃhitā*, Vāgbhaṭa, Vṛnda, *Yogacintāmaṇi*, and *Yogaśataka*.[296]

The *Vaidyavinoda*[297] is an adaptation in Hindī verse (caupāī, dohā) of the *Śārṅgadharasaṃhitā*. It consists of 2,525 verses, arranged in three sections (khaṇḍa) with respectively seven, thirteen, and thirteen chapters (adhyāya).

The author and his date

Rāmacandra, a Jain monk of the Kharataragaccha, was a son of Keśavadāsa[298] and a pupil of Padmaraṅgagaṇi.[299] Padmaraṅgagaṇi's guru was Padmakīrti; the latter's guru was Jinasiṃhasūri.[300]

The *Rāmavinoda* was completed in Sakkīnagara in 1663/64;[301] the *Vaidyavinoda* dates from 1669.[302] Rāmacandra lived during the reign of Aurangzīb.[303]

Rāmamāṇikyasena

Rāmamāṇikyasena wrote his *Prayogacintāmaṇi* in the seventeenth century.[304]

Śaṃkara

Śaṃkara was the author of (1) *Vaidyavinoda*,[305] (2) *Rasaśaṃkara*, and (3) *Śaṃkarākhya*.

(1) The *Vaidyavinoda*[306] is a saṃhitā[307] dealing chiefly with nidāna and cikitsā, along with some general subjects. Its therapy is of a mixed type; rasas have a secondary place in it.

Contents

The work consists of 1,750 verses,[308] arranged in sixteen chapters (ullāsa).[309] After some introductory verses (1–8), definitions of nidāna, prāgrūpa, rūpa, etc. (11–13), a short exposition on nāḍī- (13–21) and mūtraparīkṣā (22–25), and a list of ariṣṭas (26–33), the main part of the treatise begins, which describes the nidāna and cikitsā of the diseases (chapters one to fifteen), arranged in basic agreement with the *Mādhavanidāna*, but with a number of additions: bhasmaka (3.16–17), vardhma (6.77 and 10.79–80),

dehadaurgandhya (10.10–13), vahnidagdha (11.106–119), munnatākhyaroga (12.79–82), sūryasaṃkrāntivisphoṭa (13.129–132), snāyuroga (13.133–139), and śītalā (13.140–158). Only a restricted number of the kṣudrarogas described by Mādhava is dealt with by Śaṃkara; the same applies to the eye diseases. The diseases called somaroga and phiraṅgaroga are absent. Much of the nidāna material seems to consist of free renderings of verses forming part of the *Mādhavanidāna* and borrowings from it, but other sources were evidently also utilized. Chapter sixteen is concerned with various general subjects: disorders by the drinking of polluted water (1–2), vājīkaraṇa (4–16), jalayoga (17–21),[310] vamana and virecana (22–43), technical terms (44–54), medicinal preparations (55–128), weights and measures (129–138), technical terms again (167–177), etc.

Śaṃkara's materia medica contains for the greater part common names of āyurvedic drugs, but rare or new names are also met with. The use of mercury,[311] sulphur, etc., is not inconsiderable, whereas the number of rasas is quite limited.[312] Alchemical yantras are mentioned sporadically.[313] Religious elements are infrequently encountered: Ghaṭotkaca[314] should be worshipped by patients suffering from śītalā (13.148, 150, 157), as well as Śiva and Gaurī (13.157). Two mantras are found in this work, one with the object of acquiring a son (15.184), the other, quoted from the *Viṣṇupurāṇa*, against snake-bites (15.271).

Sources referred to by Śaṃkara are Hārīta, Pārāśara and Suśruta.[315]

A commentary on the *Vaidyavinoda* was written by Rāmanātha.[316]

A *Vaidyavinoda* is quoted in Ananta's *Pratāpakalpadruma*, Vācaka Dīpacandra's *Laṅghanapathyanirṇaya*, and Nidhi's *Yogasamuccaya*.

A *Vaidyavinoda* was one of the sources of Kalyāṇa's *Bālatantra* according to Dīpacandra.[317]

Special features

Noteworthy in the field of nosology are the following features. The swelling at the root of the ear, usually said to arise at the end of a saṃnipāta fever,[318] may be found in the initial, middle, and last phase of a fever according to the *Vaidyavinoda* (1.67). The verses on śotha mention swelling (śotha) arising from śigru (10.56) and bhallātaka (10.58). A new disorder, not mentioned in other sources, is munnatākhyaroga (12.79–82); it is described as a venereal disease characterized by induration and swelling of the prepuce (liṅgacarman), which is caused by sexual intercourse with an affected female. Another infectious disease is kuṣṭha (13.15); the lepromatous type, in which the tip of the nose may become deformed (nāsikāgrimavibhāgavibhaṅga) or parts of the fingers lost (aṅgulīvigalana), is called galatkuṣṭha (13.56). Udarda and śītapitta are regarded as synonyms (13.67).[319] A special form of visphoṭa is sūryasaṃkrāntivisphoṭa (13.129–132),[320] in which the recitation of the śītalāmantra is recommended, along with other remedial measures. Śītalā, also called oṣa, is said to be of four types: takrā, orikā, ākasmikā, and śītalā (13.140–158). The term masūrikā seems to be employed as a synonym of oṣa (13.154).[321] Diseases of the nail bed are viṣa (14.33) and pūtinakha (14.37) or nakhakoṭipūtibhāva (14.35). In the section on diseases of the ears, an instrument is described that can be used in extracting foreign matter from the ear (the pannagī-

yantra, shaped like the hood of a serpent: 15.19–20).

Remarkable names of medicinal plants are bhuṇḍikā (3.27), candraśūrā (15.114), godhāvinī (9.18), kārika (7.30), ketu (7.30), photā (11.99), trika (8.19),[322] and uṣṭrakaṇṭha[323] (6.109).

Other interesting terms are dhundha[324] (15.109 and 118), dhundhukāra[325] (15.116), kabābā (15.114), and sīpikā[326] (11.113; 12.81; 15.115).

(2) *Rasaśaṃkara.*[327]

(3) *Śaṃkarākhya.*[328]

The author and his date

Śaṃkara was the son of (Bhaṭṭa) Ananta of Gauḍavaṃśa.[329] He wrote the *Vaidyavinoda* at the request of his royal patron, king Rāmasiṃha, son of Jayasiṃha.[330] This king was identified by S.L. Katre[331] as Rāmasiṃha of Amber (1668–1699), son of the Jayasiṃha (1621–1667) who led in 1665 Aurangzīb's successful expedition against Śivājī.[332] A MS of the *Vaidyavinoda* dating from 1705/06[333] confirms that the work belongs to the last part of the seventeenth century.[334]

Śivadattamiśra

Śivadattamiśra was the author of (1) the *Śivakoṣa* and its commentary, the *Śivaprakāśa*,[335] and (2) the *Saṃjñāsamuccaya.*[336]

(1) The *Śivakoṣa*[337] is a homonymic dictionary,[338] restricted to the āyurvedic materia medica, in 540 verses, arranged alphabetically according to final consonants; it is accompanied by an auto-commentary, called *Śivaprakāśa.*[339]

The method followed and the technical terms used are explained by the author in the introductory verses, which also refer to a series of lexica as sources: *Śabdārṇava*,[340] Ajaya,[341] Amara,[342] Vopālita,[343] Siṃha,[344] Medinī,[345] Viśva,[346] *Hārāvalī*,[347] Halāyudha,[348] Śāśvata,[349] Haima,[350] and *Trikāṇḍaśeṣa.*[351] No sources are mentioned in the body of the text.[352]

The *Śivakoṣa* was one of the sources of Raghunāthajī's *Nighaṇṭusaṃgraha.*

The auto-commentary on the *Śivakoṣa*, called *Śivaprakāśa*,[353] is a very valuable work which explains each word of the koṣa and quotes profusely from a large number of authorities. Repeatedly added are the local names of plants[354] and the countries where they are found.[355]

Sources mentioned in the *Śivaprakāśa* are:[356] *Abhidhānacūḍāmaṇi*,[357] Ajaya,[358] Amara,[359] Amaracandra,[360] *Amaramālā*,[361] *Anekārthāḥ*,[362] *Anekārthadhvanimañjarī*,[363] *Āścaryamañjarī*,[364] Aśokamalla,[365] *Aṣṭaṅgasaṃgraha*, Ātreya, Bāṇabhaṭṭa, Bhāravi, Bhavabhūti, *Bhāvaguṇanāmamālā*,[366] *Bhāvaguṇaratnamālā*,[367] Bhāvamiśra, Bopadeva,[368] Cakra,[369] Candra,[370] Candranandana,[371] Ḍallaṇa, *Damayantīkāvya*,[372] Daṇḍin, Devala,[373] Dhanvantari,[374] dhānvantarīyāḥ,[375] Dharaṇi,[376] Dharmadāsa,[377] Dharmiṣṭha,[378] *Dvirūpakoṣa*,[379] Gālava,[380] gāndhikāḥ,[381] gosvāmigopeśvarāḥ,[382] *Guṇaratnamālā*,[383] gurjarāḥ, Haima,[384] Hāla(bhūbhuj), Halāyudha, *Hārāvalī*, Haṭṭacandra,[385] Hemacandra,[386] Hemādri, *Hṛdayadīpaka*,[387] Indu,[388] Jejjhaṭa, Kālidāsa, *Kesaramālā*,[389] Keśava[390], Keyadeva,[391] *Kumāra*,[392] Locana,[393] Lolimbarāja, Madanapāla, *Madanavinoda*, *Madguruvallabhā*,[394] Mādhava,[395] *Mādhavī*,[396] Māgha, *Mālā*,[397] *Medinī*, *Meghadūta*, *Mitākṣarā*, Mukuṭa,[398] *Nāmaguṇamālā*,[399] *Nāmamālā*,[400] Nānyadeva,[401] Nārāyaṇabhaṭṭa,[402] *Nighaṇṭu*, Paṅkajabhaṭṭa,[403] pāścātyāḥ, *Prabhāvatīharaṇacampū*,[404] prācyāḥ, Prāñca,[405] Puruṣottama,[406] Rabhasa,[407] *Raghu*,[408] *Rājanighaṇṭu*,[409] Rāma,[410] Rāmāśrama,[411] Rantideva,[412] *Rasaratnasamuccaya*, *Rasāyanaprayoga*,[413] *Ratnakoṣa*,[414] Rudra,[415] Rūpanārāyaṇa,[416] *Śabdārṇava*,[417] *Saṃgraha*,[418] sāṃyātrikāḥ,[419] Śāśvata,[420] *Siddhamantra*,[421] *Siddhamantraprakāśa*,[422] Siṃha,[423] Somanandin,[424] *Śṛṅgārahāra*,[425] Śubhāṅka,[426] Subhūti,[427] Suśruta, *Sūtra*,[428] Svāmin,[429] Tārapāla,[430] *Trikāṇḍaśeṣa*,[431] Ujjvaladatta,[432] *Utpalinī*,[433] Vācaspati,[434] Vāgbhaṭa, *Vaijayantī*,[435] Vāpyacandra, *Vidagdhamukhamaṇḍana*,[436] *Vidvadvaidyavallabhā*,[437] *Viśva*,[438] *Viśvalocana*,[439] Viṭṭhalakṛṣṇabhaṭṭa,[440] *Vopālita*,[441] vṛddhāḥ, and Vyāḍi.[442]

The author

Śivadatta[443] was the son of Caturbhuja,[444] who belonged to the Karpūra family.[445] He got his training in āyurveda from his father.[446] Śivadatta's son, Kṛṣṇadatta, wrote a commentary on Trimalla's *Śataślokī.*[447] Śivadattamiśra may have joined other paṇḍits of Benares in congratulating Kavīndrācārya Sarasvatī for his successful efforts in getting the pilgrim tax at Benares, reimposed by the emperor Shāh Jahān, remitted.[448]

Date

As indicated at the end of the work, the *Śivakoṣa* was completed in A.D. 1677/78.

Śivamiśra

Śivamiśra was the author of the *Vaidyaśāstraśivānubhava*, a work of a compilatory character in five sections.[449]

The first section, dealing with the aetiology and symptomatology of diseases, closely agrees with the *Mādhavanidāna.* The second section discusses some general subjects first, but is mainly devoted to therapy and consists of prescriptions which include rasas; it has also a chapter, called vīryastambhanādyadhikāra, which contains formulae to increase the size of the penis in men and that of the breasts in women, to promote potency in men and fertility in women, etc., as usual in medical treatises of later periods; it describes sneha, vamana, virecana and related subjects as well. The third section is concerned with the purification of mercury, some metals, etc., and with the preparation of medicines containing chiefly inorganic substances. The fourth section deals with the medicinal qualities of foods, and the fifth section with the substitutes for a number of drugs. The work ends with verses on karmavipāka.

Sources referred to are: *Bhāvaprakāśa*, *Cakradatta*, Caraka, Gorakṣa, Kunda(?), Mādhavakara, *Rājamārtaṇḍa*, *Rasabhāskara*, *Rasadarpaṇa*, Śārṅgadhara, Śivadāsa,

Śrīśailanātha, Vacasiṃha(?), Vāgbhaṭa, and Vṛnda.

The *Śivānubhava* is one of the sources of the *Bṛhadrasarājasundara*.

The introductory verses give the following genealogy of the author: Gaṅgādhara (well versed in āyurveda, of Śāṇḍilyagotra, belonging to a Śākadvīpa family living in Bhalunīpura of the Dānavāri region)–Śaśidhara–Divākara–Narahari–Haricandra–Hari–Śivamiśra.

Śivamiśra states that he wrote his work at the request of some famous physicians connected with the court of Shāh Salem (i.e., Akbar's son Salīm, who assumed the title of Jahāṅgīr after his accession to the throne).

The date of the work is indicated in the text as the year 1661 of the Vikrama era, i.e., A.D. 1604/05.

Trimallabhaṭṭa

Trimallabhaṭṭa was the author of four medical works: (1) *Yogataraṅgiṇī*,[450] (2) *Bṛhadyogataraṅgiṇī*,[451] (3) *Vaidyacandrodaya*,[452] and (4) *Dravyaguṇaśataślokī*.[453] He also wrote the *Alaṃkāramañjarī*,[454] *Vṛttamāṇikyamālā*,[455] and, according to some, the *Yogacandrikā*[456] and a commentary on Sukhalatā's *Śataślokī*.[457] His authorship of the *Rasadarpaṇa* is disputed.[458]

(1) The *Yogataraṅgiṇī*[459] is a treatise of about 2,750 verses, arranged in eighty-one chapters (taraṅga). Chapter one is of an introductory nature and deals, amongst other things, with the tridoṣa doctrine. Chapter two is about weights and measures; it reproduces *Śārṅgadharasaṃhitā* I.1.14cd–44ab and 39cd–42 without mentioning this source; some verses from *Kṛṣṇātreya* are quoted at the end. Chapter three contains rules for the preparation of medicines and enumerates a number of substitutes for particular medicinal substances; 3.1–9 is identical with *Śārṅgadharasaṃhitā* I.1.44–45. Chapter four is about medicines with a fatty basis (sneha); the verses are partly from *Śārṅgadharasaṃhitā* III.1. Chapters five to nine describe the five procedures belonging to pañcakarman: sveda, vamana, virecana, basti and nasya. The source of the larger part of these chapters is the *Śārṅgadharasaṃhitā* again (III.2–8); the chapter on virecana adds some formulae, some of which are rasayogas. Chapters ten to eleven, on dhūmapāna and raktasruti (bloodletting), have, once again, been borrowed from the *Śārṅgadharasaṃhitā* (III.9 and 12). The next five chapters are devoted to nāḍīparīkṣā (12),[460] vastra- and jihvāparīkṣā (13), chāyāpuruṣalakṣaṇa (the examination of one's shadow as a prognostic procedure) and mūtraparīkṣā (14), dūta- and malaparīkṣā (15),[461] netraparīkṣā,[462] śakuna (omina) and svapna (dreams) (16). Chapter seventeen is concerned with alchemy. Chapter eighteen is about the preparation of svarasa, kalka, kvātha, yavāgū and related fluids, bhakta and maṇḍa, phāṇṭa, śītakaṣāya, cūrṇa, vaṭikā, and avaleha; it also enumerates groups of medicinal substances.

Chapters nineteen to seventy-eight deal with diseases and their treatment. Chapters seventy-nine and eighty are concerned with rasāyana and vājīkaraṇa. Chapter eighty-one describes the seasons and the regimen to be observed during each of them.

The diseases are enumerated at the beginning of chapter nineteen (1–9). Their order in the *Yogataraṅgiṇī* is largely in agreement with the *Mādhavanidāna*. Ānāha, however, is not described, and referred to once only in a formula of the chapter on udāvarta (45.15). A chapter on ūrustambha is missing. Gynaecology and obstetrics are dealt with in three chapters, on pradara, sūtikāroga, and strīroga; yonikanda is not described, neither referred to. Diseases added to those mentioned in the *Mādhavanidāna* are bhasmaka (24².1–2), kuraṇḍa (55.2), bradhna (56.1), and snāyuka (67.1).

The verses on nidāna are in many cases few in number or, in rare cases, even absent.[463] The majority have been borrowed from the *Mādhavanidāna*, either referred to by name or not;[464] a minority are from other sources, some of which mentioned by name.[465] The verses on therapy are arranged in such a way that the rasayogas follow upon āyurvedic prescriptions. Religious therapy and magic are also represented, especially in the chapters on masūrikā (67), sūtikāroga (75), and bālaroga (77).

The *Yogataraṅgiṇī* is a compilatory work[466] that quotes a large number of sources. Nevertheless, as already indicated, numerous stanzas remain anonymous.

The sources of the *Yogataraṅgiṇī*, as found in edition a, are: *Alaṃkāra* (44.1),[467] *Ārogyadarpaṇa* (20.59–60, 113–114 and 123),[468] *Aśvinīkumārasaṃhitā* (71.55–56),[469] *Bauddhasarvasva* (17.62–69 and 79–84; 29.13–16; 64.6),[470] Bhallūka (19.35–72),[471] Cakradatta[472] (20.1–4 and 11; 60.45–46; 75.4; 80.65–66), Caraka (27.15; 49.6–11), Carpaṭī[473] (79.21), *Cikitsā* (21.24–25; 22.12; 23.44–46; 27.9–11; 70.3–4 and 11; 80.15),[474] *Cikitsādīpa* (29.4),[475] (Tīsaṭa's) *Cikitsākalikā* (20.63; 21.15; 23.27–28),[476] Dhanvantari (24².5–13),[477] Hārīta (27.33–36), *Kalikā* (71.15, 25 and 63; 79.16),[478] Kṛṣṇātreya (2.30–31; 70.15–16; 71.31),[479] Lolimbarāja (28.28),[480] Madanapāla[481] (20.18–20), Manthānabhairava (24.44–53),[482] Matimukura (71.44 and 49), Nāgārjuna (14.13), *Nārāyaṇīya* (29.2),[483] pāścātyadeśāgatayogin (20.36–37), *Rājamārtaṇḍa* (24⁴.8–9; 26.30; 34.5–6; 50.8; 57.19–21; 69.19; 71.26 and 32; 75.34; 76.3; 77.8 and 18; 79.8; 80.110), *Rasadarpaṇa* (3.12),[484] *Rasamañjarī* (80.79–84),[485] *Rasaratnapradīpa* (17.74–77; 23.52–53; 24⁴.13–14; 25.1 and 29–31; 27.76–78; 28.21–25; 29.12; 32.8–11; 34.9; 38.23; 39.8–10; 41.1–2; 47.5; 50.1 and 11; 51.29; 64.13–14; 71.3; 80.79–84),[486] *Rasārṇava* (24.35–43 and 54–59; 27.49–53), *Rasasindhu* (24².14–16), *Rasendracintāmaṇi* (24³.1–3 and 21–24; 26.42–45; 41.39–40), *Rasendrasaṃhitā* (24³.17–20), *Rugviniścaya* (24⁴.1; 35.1; 37.1; 38.1–2; 50.2; 52.1–2; 60.1), *Saṃgraha*[487] (44.11–14), *Sārasaṃgraha* (20.75, 85, 92, 157–158; 25.10–13; 27.54–57 and 72–75; 28.31–32; 30.6–10; 33.3; 34.7–8; 40.12–22; 41.24–25; 48.11–18; 51.19–21; 71.33 and 64–65; 81.1–14),[488] Śārṅgadhara (20.48, 52, 57–58, 95, 111–112, 192–193; 27.42–48; 28.16–17; 30.2; 40.100–111 and 123–129; 41.16–20 and 33–38),[489] *Sarvasaṃgraha*[490] (25.4), Saugatasiṃha,[491] *Śivāgama* (14.2), Suśruta (23.7; 27.4–5; 29.3; 33.2; 50.4), Vāgbhaṭa (75.3 and 57–62), *Vaidyadarpaṇa*[492] (71.54), *Vaidyālaṃkāra* (69.21–25),[493] *Vasantarāja*[494] (17.58–61;[495] 29.17), *Vīrasiṃhāvaloka*[496] (24¹.13–17;[497] 25.21;[498] 34.1; 35.2–8; 38.20–21; 39.4–5), Vṛnda (20.29–32, 41, 45, 49, 62, 71, 74, 93–94, 103–106, 118, 176–177; 21.22–23 and 43; 22.7, 11, 22–23; 23.38–41; 24¹.19–22; 24⁴.12; 25.2–3, 7–9, 27; 26.2–6; 28.11–15; 29.8–11; 30.1; 31.3–4; 33.5–7; 34.2–4; 38.22; 39.2–3; 40.26–28; 41.3, 5–6, 7–15, 32; 42.9 and 10–16; 43.1 and 6–11; 44.7–10; 45.5–6; 47.4;

48.10; 51.3 and 5–9; 53.1; 58.8; 62.26; 69.16; 77.40–41; 79.11; 80.10 and 32–36), *Yogaratna*[499] (33.4), *Yogaratnapradīpa*[500] (71.62), *Yogaratnāvalī* (20.81–82; 21.42; 22.26–27; 23.49; 24.23; 25.27; 26.13–16; 28.26–27; 39.6–7; 40.2–4; 41.22–23 and 26–31; 42.17–25; 64.7–8, 15–19, 25–26; 69.15; 70.14; 71.18–24 and 46–48; 72.5–6), *Yogasāra* (25.14 and 15–18), and Yogaśata (20.40, 46–47, 65, 115; 24⁴.2; 27.12–14; 50.9; 51.4).

The Hindī commentator of ed. a adds: Ātreya (8.31–40), *Bṛhadātreya* (8.31–40), Gorakṣa (3.18), *Rasacintāmaṇi* (17.22–26), *Rudratantra* (15.4–10), *Vṛddhahārīta* (12. 1–10), *Vṛddhaśaunaka* (3.22), *Yamalagrantha* (16.1–7), and *Yogapārijāta* (8.55–58). Ed. b[501] adds: *Bṛhadātreya* (8.31–40), *Prayogapārijāta* (8.49–54),[502] *Rudratantra* (15. 4–10),[503] Tīsaṭācārya (1.42–54), *Vṛddhahārīta* (12.1–10),[504] and *Yāmala* (16.1–7).[505] A. Rahman[506] adds *Gorakṣamata* and *Rasamārga*. The NCC mentions the *Pīyūṣasāgara* as a work quoted in the *Yogataraṅgiṇī*.[507]

Some of the sources of the *Yogataraṅgiṇī* are not referred to in the *Bṛhadyogataraṅgiṇī*. This need not imply that these sources were not employed in compiling the *Bṛhadyogataraṅgiṇī* because both texts contain a large number of unidentified verses. Part of these can be identified by comparing the *Yogataraṅgiṇī* with the *Bṛhadyogataraṅgiṇī*.[508] This enables us to determine at least two more sources of the *Yogataraṅgiṇī*: Bhadraśaunaka and *Gorakṣamata*.[509] A comparison of both works also shows that there are very numerous variants in the readings of essentially the same verses.

The *Yogataraṅgiṇī* is one of the sources of the *Bheṣajasaṃhitā*, Dattarāma's *Bṛhadrasarājasundara*, Devasiṃha Viṭṭhal's *Bṛhadāsavāriṣṭasaṃgraha*, Mādhava's *Āyurvedaprakāśa*, Pratāpasiṃha's *Amṛtasāgara*, Raṅgajyotirvid's *Vicārasudhākara*, Viśvanātha Dvivedī's *Rasendrasambhava*, and the *Rasoddhāratantra*.

The *Yogataraṅgiṇī* is quoted in Hanumatprasāda's commentary on the *Siddhabhaiṣajyamañjūṣā*, Khare's commentary on the *Rasaratnasamuccaya*, Nirañjanaprasāda Gupta's *Pāradasaṃhitā*, the *Rasatattvavivecana*, Śāma's *Sārasaṃgrahataraṅgiṇī*, Somadevaśarman's commentary on the *Āyurvedaprakāśa*, Vidyāpati's *Vaidyarahasya*, and the *Yogaratnākara*. The *Laghuyogataraṅgiṇī* (i.e., the *Yogataraṅgiṇī*) is quoted in Mādhava's *Āyurvedaprakāśa* and the *Rasāyanasaṃgraha*.[510]

Chapter three (3.25–27) informs us of the discount on fresh or prepared drugs available to vaidyas; this discount, called dhānvantarabhāga or rudrabhāga, was one-eleventh with respect to fresh drugs and 12.5 to 50 percent of the cost of prepared medicines.[511] Homage has to be paid to Vighneśa, Kṣetrapāla and Baṭuka before starting the process of snehapāka (4.21–22).[512] A form of sudation called vrīhijanyasveda has been added to the usual series (5.29).[513] Among the ways of examining a patient the unusual process of vastraparīkṣā is described (13.1–4).[514] The examination of one's shadow (chāyāpuruṣa) is described among the forms of parīkṣā (14.1–11);[515] it provides information on the chances of recovery or the time span left to a patient until his death; the verses on this subject are from the *Śivāgama*. Syphilis, although not separately described, is referred to at least once as phiraṅga (17.69). The preparation of rasakarpūra, often used as a specific against syphilis, is described (17.62–69), quoted from the *Bauddhasarvasva*.[516] The symptoms of one series of thirteen saṃnipāta fevers[517] are described, followed by abhinyāsa fever (19.36–72 and 78–79); the members of the series are viddha,[518] bhalla,[519] śarkara, visphuraka,[520] śīghrakārin,[521] phamphaṇaka,[522] karṇamūla,[523] karkaṭaka,[524] saṃmohaka,[525] saṃgrāma,[526] krakaca,[527] pākala, and kūṭapākala;[528] the therapy of these fevers is not dealt with. A particular rasayoga (aśvakañcukīrasa: 20.36–37) is said to derive from a yogin who came from a western country (pāścātyadeśāgatayogin).[529] The way of preparing a mineral acid or mixture of mineral acids (śaṅkhadrāva) is described (24¹.29–34).[530] The disease called bhasmaka is mentioned (24².1–2).[531] Pariṇāmaśūla is said to be of eight types in a verse quoted from the *Alaṃkāra* (44.1).[532] The disease called kuraṇḍa is mentioned (55.2).[533] The disease called bradhna is dealt with in a separate chapter (56).[534] The disease called snāyuka (67.1–4)[535] is described in the same chapter as masūrikā. The verses on masūrikā mention in passing the type called kodravaka (67.9),[536] as well as the appeasement of the goddesses Śītalā and Caṇḍī as therapeutic measures in cases of masūrikā (67.10–11).[537] Anticonceptive (75.8–15) and abortifacient measures (75.16–19) are described.[538] The bālagrahas, taking possession of a child on the first, second, etc., day, in the first, second, etc., month or year of its life, are called Nandā, Sunandā, Pūtanā, Maṇḍitikā,[539] Pūtanā, Śakunī, Śuṣkarevatī, Āryakā, Sūtikā, Nirṛti,[540] Pilipiṇḍikā,[541] and Kāmukā (77².1–12).[542] Noteworthy medicinal substances repeatedly prescribed by Trimalla are ahiphena (opium), bhaṅgā (Cannabis) and mastagī; other interesting names of drugs are candraśūra (62.30), kuliñjana (62.28), and pāṭīra (64.6).[543]

(2) The *Bṛhadyogataraṅgiṇī*[544] is much longer than the *Yogataraṅgiṇī* and consists of about 10,000 verses, arranged in 148 chapters (taraṅga). It is in many respects an expanded version of the *Yogataraṅgiṇī*, but it not only adds to the text of the latter. Many instances can be found of sequences of verses replaced by material from a different source,[545] and, less frequently, verses incorporated in the *Yogataraṅgiṇī* are omitted altogether from the *Bṛhadyogataraṅgiṇī*.[546] Stanzas occurring in both texts often show variant readings. The *Bṛhadyogataraṅgiṇī* contains some prose[547] and a number of glosses.[548]

The verses on therapy are arranged in the same way as in the *Yogataraṅgiṇī*; āyurvedic prescriptions precede the rasayogas. Religious therapy and magic, such as mantras and yantras, are especially represented in the chapters on masūrikā (126), mūḍhagarbha (140), bālaroga (144), and viṣa (145).

The *Bṛhadyogataraṅgiṇī* differs from the *Yogataraṅgiṇī* in many respects. A chapter on embryology and anatomy is added (2). The chapter on weights and measures gives at the end a verse from Matimukura. Chapter four, identical with chapter three of the *Yogataraṅgiṇī*, refers to a number of sources. Chapter five, on snehapāna, longer than the corresponding chapter of the *Yogataraṅgiṇī*, mentions some sources (Śārṅgadhara, Caraka, *Yogaratnāvalī*, *Vaidyālaṃkāra*, and Matimukura). Chapters six to twelve resemble chapters five to eleven of the *Yogataraṅgiṇī*, but some are somewhat longer. Chapters thirteen and fourteen are additions, concerned with the royal kitchen. Chapter fifteen, on the regimen during the seasons, differs from the corresponding chapter (81) at the very end of the *Yogataraṅgiṇī*; the descriptions of the seasons do not tally and their order is dissimilar.[549] Chapter sixteen, on prepared foods

(siddhānna),[550] is an addition again, as well as chapters seventeen on dinacaryā, eighteen on rātricaryā, and nineteen on rasa, vīrya, vipāka, and prabhāva. Chapters twenty to thirty-seven form a nighaṇṭu, not found in the *Yogataraṅgiṇī*; they contain, usually without describing a drug and giving its synonyms,[551] enumerations of the medicinal properties of numerous articles of food and drugs; the subjects of these chapters are: dugdha, dadhi, takra, navanīta, ghṛta, taila, madya, ikṣu, madhu, śālyādi, phala, śāka, māṃsa, harītakyādi, vaṭādi, śuṇṭhyādi, and karpūrādi. Chapters added are thirty-eight on definitions of actions of drugs (pācanādi),[552] thirty-nine on incompatible articles of food (viruddhāhāra), and forty on eighteen groups of drugs (rāsnādigaṇa). Chapters forty-one to forty-three on rasaśāstra (alchemy) are much more elaborate than the corresponding chapter (17) of the *Yogataraṅgiṇī*. The seven kañcukas of mercury and the disorders caused by them are described according to the *Bauddhasarvasva*; their names are mṛd, pāṣāṇa, jala, kālī, kāpālikā, śyāmā, and kapālikā (42.13–15ab).[553] The twenty saṃskāras of mercury, as mentioned in the *Śivāgama*, are enumerated (42.18): paṭasāraṇa,[554] sammardana, mūrchana, utthāpana, sveda,[555] pātana, bodhana, niyamana, dīpana, mukhakaraṇa, jāraṇa, saviḍā, māna, garbhadruti, rañjana, vedhana, bahirdruti, sāraṇa, krāmaṇa, and māraṇa. The uparasas listed are (43.1–2): gandhaka, vajra, vaikrānta, sindūra, bola,[556] gairika, samudraphena, khaṭikādvaya,[557] śambūka, tārkṣyaja, kāsīsa, kāntapāṣāṇa, varāṭī, śukti, hiṅgula, kaṅkuṣṭha,[558] śaṅkha, bhūnāga, ṭaṅkaṇa,[559] and śilājatu. Four minor gems are enumerated: muktā, vidruma, śaṅkha and rājāvarta (43.82). Chapter forty-four on ariṣṭajñāna is for its larger part an addition, consisting of quotations from the *Yūpasāgara* and *Rasamañjarī*; it also deals with the prognosis by means of one's shadow (chāyāpuruṣa), in the same words as in chapter fourteen of the *Yogataraṅgiṇī*. Chapters forty-five to fifty-three are about the various forms of parīkṣā, as chapters twelve to sixteen of the *Yogataraṅgiṇī* are; the subjects are partly differently and more elaborately described than in the *Yogataraṅgiṇī*; vastraparīkṣā is omitted, but, on the other hand, varṇa- and svaraparīkṣā have been added. Chapter fifty-four, on some ariṣṭas, is an addition. The same applies to chapter fifty-five on the most auspicious times for collecting drugs and about the parts of the day, etc., on which a drug should be given to patients suffering from particular diseases; dosages are also mentioned. Chapter fifty-six, also added, is concerned with the signs indicating an increase or decrease of the doṣas, dhātus, and malas.

Chapters 57–145 are about diseases and their treatment. Chapter 146 describes combinations of articles of food which are regarded as incompatible (viruddhāhāra).[560] Chapter 147 deals with vājīkaraṇa, and the last chapter, 148, enumerates the main drugs employed in each of the diseases mentioned.

Chapters 57–145 usually begin with reproducing the corresponding chapter of the *Mādhavanidāna*, to which sometimes verses are added,[561] while in rare cases verses found in the *Mādhavanidāna* are replaced by other ones.[562] The *Bṛhadyogataraṅgiṇī* mentions, more often than the *Mādhavanidāna*, the complications (upadrava) of a particular disease;[563] the therapy of these complications is sometimes separately described.[564]

When compared with the *Yogataraṅgiṇī*, many differences strike the eye. The description of two series of thirteen saṃnipāta fevers; the members of the first series

(57.55–67) bear, one fever excepted (vyālākṛti replaces karṇamūla of the *Yogataraṅgiṇī*), the same names as those found in the *Yogataraṅgiṇī*, but their order slightly differs; more important, however, is that the descriptions, quoted from the *Pīyūṣasāgara*, bear no resemblance at all to those occurring in the *Yogataraṅgiṇī* and are not found in any other text known to me; the treatment of this series of fevers is not dealt with. The second series (55.76–88) consists of saṃdhiga, antaka, rugdāha, cittabhrama, karṇaka, kaṇṭhakubja, śītāṅga, tandrika, pralāpaka, raktaṣṭhīvin, bhugnanetra, abhinyāsa, and jihvaka; the descriptions of these fevers are, antaka excepted, identical with those of Śārṅgadhara's *Triśatī*;[565] Trimalla's description of antaka is not found in any other text; the verses on the treatment of these fevers (59.69–155) are borrowed from Śārṅgadhara's *Triśatī* again.[566] The addition of a chapter on jvarātisāra (65).[567] The description of daṇḍālasaka (71.20).[568] A description of bhasmaka (71.24–25) that is different from that of the *Yogataraṅgiṇī*.[569] The description of suptavāta under the name of tvakśūnyatā (90.267cd–268).[570] A separate chapter on ūrustambha (92). A separate chapter on the treatment of ānāha (97). The verse on kuraṇḍa of the *Yogataraṅgiṇī* (55. 2) is absent, but the same disease (kuraṇḍa, koraṇḍa) is referred to in the verses on the therapy of vṛddhi (107.36 and 38). The definition of bradhna (107.13)[571] differs from that found in the *Yogataraṅgiṇī* (56.1); it is also called vardhma (107.46–47). The description of stanavidradhi (110.28–29).[572] The description, in prose, of agnidagdhavraṇa (113). The description of a dāruṇa type of upadaṃśa, occurring in both men and women (117.8cd–9). The description of the aetiology, symptoms and treatment of a venereal disease called rativraṇa,[573] and of the intoxication brought about by the abuse of mercurial preparations (sūtadoṣa) (118).[574] A separate chapter on snāyuka (124). The addition of an adhikāra on śītalā to the chapter on masūrikā (126.78–105); this adhikāra also contains the well-known hymn to Śītalā from the *Kāśīkhaṇḍa* of the *Skandapurāṇa*. The number of chapters on gynaecology and obstetrics (133–143) is much larger than in the *Yogataraṅgiṇī*. The addition of a chapter on somaroga and mūtrātisāra (135).[575] The addition of a chapter on strīdveṣa (136), taken from Nāgārjuna's *Yogasāra*.[576] The addition of a chapter on yonikanda (138). The addition of a chapter on makkalla (141).[577] The insertion of the pūtanāvidhāna from Rāvaṇa's *Kaumāratantra* in the chapter on children's diseases (144).

Chapters sixteen and twenty to thirty-seven, which form a nighaṇṭu, incorporated in the *Bṛhadyogataraṅgiṇī*, are based on the *Madanapālanighaṇṭu*. Trimalla quotes Madapanapāla's verses on the properties of medicinal substances and articles of food, mostly omitting to enumerate their synonyms. The order of Madanapāla's chapters has been changed by Trimalla; some substances are absent,[578] while other ones were added by him.[579] In rare cases a verse differs completely from the corresponding one in the *Madanapālanighaṇṭu*.[580] Worthy of note is Trimalla's distinction of āḍhakī (30.30) and tuvarī (30.44ab),[581] garjara (32.69) and gṛñjana (32.80cd–81ab).[582] Some names do not agree with those occurring in the *Madanapālanighaṇṭu*.[583] Vernacular names are also mentioned.[584] Chapter sixteen, which belongs to the nighaṇṭu of the *Bṛhadyogataraṅgiṇī*, has, at least for its major part, not been borrowed from the *Madanapālanighaṇṭu*, although it shares a number of verses with it.[585]

A few medicinal substances, prescribed in the *Bṛhadyogataraṅgiṇī*, are absent from

the nighaṇṭu chapters, e.g., ākalla (118.21), ākārakarabha (117.32), dvīpottharāsnā (91. 86),[586] postaka (118.7), śaṅkhopala (117.37), and śivaliṅgī (139.18). Chapter forty-one does not mention zinc (yaśada) among the metals.

The *Bṛhadyogataraṅgiṇī* refers to and quotes from the following authorities and sources: *Āgama* (42.228–233),[587] *Ārogyadarpaṇa* (59.35–36 and 219–220), *Āśvineya* (84.31–41),[588] *Bauddhasarvasva* (42.13–15ab; 79.33–36; 90.232–234), Bhadraśaunaka (4.21ef–26ab),[589] Bhāradvāja (139.28–37),[590] *Bhāvaprakāśa* (131. 183–185),[591] Bheḍa (32.30ab),[592] Bhoja (18.30–31ab and 33ab; 116.5–11),[593] *Bṛhadātreya* (9.34cd–44),[594] Caraka (5.26–36ab; 58.16; 76.76; 101.33–39ab; 106. 74–75; 129.37–38), *Cikitsā* (69.29–31), (Tīsaṭa's) *Cikitsākalikā* (59.39; 76.55–58), *Gorakṣamata* (4.11cd–18ab and 19cd–21cd; 42.12), Gorakṣanātha (81.28–30), Govindapādāḥ (42.126),[595] Hārīta (1.11; 13.36), Jaijjaṭa (106.74–75),[596] Kṛṣṇātreya (3.31–34ab; 9.66cd–27ab), Mādhava (120.284–286),[597] Manthānabhairava (71.39–48), Matimukura (3.33cd–34ab; 5.39cd–40ab), Nāgārjuna,[598] *Nalapāka* (16.5–7ab),[599] *Nārāyaṇīya* (79.17–22), *Nighaṇṭa* (gloss ad 108.46),[600] Nityanātha (147.236–240),[601] *Pīyūṣasāgara*[602] (41.92ab),[603] *Pradīpa* (79.24),[604] *Prayogapārijāta* (9.62–65),[605] *Rājamārtaṇḍa* (73.19–32; 75.37; 131.136 and 139; 147.452–454), *Rasacintāmaṇi* (42.180–184),[606] *Rasamañjarī* (41.37cd–38ab and 42–49; 44.25–29 and 30–40; 48.4–7), *Rasāmṛta* (122.51cd–54),[607] *Rasarājalakṣmī* (42.245–250),[608] *Rasaratnākara* (118.15–22 or 18cd–22),[609] *Rasaratnapradīpa*[610] (8.47–48; 59.320–321 and 326–328; 74.58–60; 76.128–130; 79.32; 88.87cdef; 94.77–78), *Rasārṇava* (41.96–99ab; 42.3–8ab; 71.121–126; 76.117–121), *Rasasindhu* (60.41–49), *Rasendracintāmaṇi* (42.17, 64–66, 71cd–74ab, 85–89; 59.31–34ab; 60.1–11; 71.149–152 and 157–160ab; 75. 104–106; 77.42–47ab), *Rasendrasaṃhitā* (71.153–156), *Ratnapradīpa* (73.36–40),[611] Rāvana's *Kaumāratantra* (144.81–104),[612] *Rugviniścaya* (75.2–10ab), *Sārasaṃgraha* (5.19–25(?); 8.46; 59.67 and 305–306; 76.122–124; 147.211–215), Śārṅgadhara (3.27cd–30; 4.1–11ab; 5.1–18; 8.45; 12.21cd–24; 47.30–41; 49.4–8; 59.19 and 28–29ab; 77.47cd–52ab; 91.73–79), *Siddhalakṣmīśvaratantra* (42.91–99),[613] *Siddhamata* (42.10–11ab),[614] *Śivāgama* (42.15cd–16, 18, 68–71ab, and 251–255), *Sudhāsāgara* (50.3–5ab),[615] Suśruta (2.139cd–192ab; 13.36; 56.69cd–75; 58.17; 76.27–37; 79.23; 129.37–38), Tīsaṭa (1.49–60b; 145.80–85),[616] Vāgbhaṭa (1.12–48; 2.197cd–200 and 202–203; 44.1–6; 56.10–14; 58.58–60; 90; 128.105–108ab), *Vaidyālaṃkāra* (4.18cd–19ab and 26cd–32; 5.38cd–39ab), *Vaidyavilāsa* (107.28cd–33),[617] *Vasantarāja* (79.37–38; 147.419–425), *Vaśiṣṭhasaṃhitā* (2.50cd),[618] Videha (13.28cd–32ab; 58.71; 131.171–174ab),[619] *Vṛddhasuśruta* (20.53–55),[620] *Vṛddhavāgbhaṭa* (58.54 and 69–70),[621] Vṛnda (59.17, 21–23ab, 38, 48–52, 201–204, 334–337; 79.25–31; 88.72; 95.50–54ab; 147.216–222), *Yogaratnāvalī* (5.36cd–38ab; 6.1–30; 59.62–63; 78.88cd–90ab; 122.44–45 and 46–51ab), *Yogasāra* (136.1;[622] 147.167–170), *Yogaśata* (59.16 and 40–41; 73.17–18; 103.74–76), and *Yūpasāgara* (44.7–24).[623] To this list have to be added, according to P.V. Sharma,[624] the *Bheṣajatantra* and *Gaurīmata*.

The *Bṛhadyogataraṅgiṇī* is quoted in the *Āyurvedīya Khanijavijñāna*, *Bheṣajasaṃhitā*, *Bṛhannighaṇṭuratnākara*, Khare's commentary on the *Rasaratnasamuccaya*, the *Pāradasaṃhitā*, *Rasoddhāratantra*, *Rasayogasāgara* and *Rasatattvavivecana*. It is one of the sources of Hariśaraṇānanda's *Kūpīpakvarasanirmāṇavijñāna*.

(3) The *Vaidyacandrodaya*[625] is a treatise on nidāna[626] in 340 skillfully composed stanzas, arranged in eighty-two chapters (avaloka). The verses are in sragdharā metre, those of the final chapter excepted, which are ślokas.

The first chapter is of an introductory character. Chapters two to seventeen are concerned with the messenger who is sent to the physician (dūta; 2), omina (śakuna; 3), embryology and anatomy (śārīra; 4), signs foreboding death (kālabodha; 5), the examination of the urine (mūtraparīkṣā) by means of a drop of oil (tailabindu; 6), the examination of the stools (malaparīkṣā; 7), the examination of the eyes (dṛṣṭiparīkṣā; 8), the examination of the pulse (nāḍīparīkṣā; 9), the characteristics of incurability (asādhya; 10), the examination of the complexion (varṇa) and voice (svara) of a patient (11), the characteristics of diseases suitable to palliative treatment (yāpya) and of curable (sādhya) diseases (12), the causes of excitement of vāta, pitta, kapha, and all three doṣas simultaneously (13–16), and nidānapañcaka, i.e., hetu, prāgrūpa, rūpa, upaśaya and saṃprāpti (17).

Chapters eighteen to eighty-one deal with the nidāna of the various diseases. Trimalla states[627] that he adopted the order of the diseases established by Mādhava. In spite of this statement the arrangement of the *Vaidyacandrodaya* shows some minor divergences: the addition of chapters on pittaroga (41) and kapharoga (42) after the chapter on vātaroga; the addition of a chapter on piḍikā (43); a different order of the chapters on śopha, ślīpada and kuraṇḍa[628] (57), vraṇaśotha (58), sadyovraṇa, bhagna and nāḍīvraṇa (59), bhagandara (60), galagaṇḍa, gaṇḍamālā, apacī, granthi and arbuda (61), and vidradhi (62); the omission of a chapter on visphoṭa, and the omission of chapters on stanaroga and stanyaduṣṭi. Other differences are: the addition of bhasmaka in the chapter on agniroga (22); the addition of daṇḍājīrṇa (verse 110) to the types of ajīrṇa mentioned by Mādhava; the comparison of the eight major diseases with a king, surrounded by his courtiers (verse 131); the enumeration of the eighty vāta diseases.

The last chapter consists of an enumeration of all the diseases dealt with in the treatise.

(4) The *Śataślokī*[629] is a work on the medicinal properties and uses of articles of food and some other substances of daily use. Its style is that of a medical kāvya; its 101 verses are mostly composed in long metres, while the śloka is completely absent.[630] Various alaṃkāras are employed by Trimalla.[631]

The substances dealt with are divided into fifteen groups (varga):[632] (1) water (jala; 3–10),[633] (2) milk and dairy produce (dugdha; 11–22),[634] (3) grain and pulse (dhānya; 22–26), (4) meat (māṃsa; 27–38), (5) vegetables (śāka; 39–49), (6) the sugarcane and its products (ikṣu; 50–51), (7) honey (madhu; 52), (8) oils (taila; 53–55), (9) fruits (phala; 56–67), (10) spices and condiments (śuṇṭhyādi; 68–73), (11) prepared dishes (kṛtānna; 74–89), (12) fermented liquids (madya; 91), (13) abhyaṅgādi (substances used for massage and bathing; 92), (14) tāmbūlādi (93–95), (15) inorganic substances (suvarṇādi; 96–100).[635]

Some interesting prepared foods (kṛtānna) described by Trimalla are jalavalaya (85)[636] (i.e., jalebī) and puṣpavaṭī (81).[637]

Commentaries on the *Śataślokī* were written by Kṛṣṇadattamiśra, Balabhadra,[638] Rūpacandra,[639] and Gopāla.[640] A *Trimallaṭīkā*, probably a commentary on the *Śataślokī*, is quoted in the *Tāmbūlamañjarī*.

Interesting features of Kṛṣṇadatta's commentary, called *Dravyadīpikā*, are: godhūma is of three types: mahāgodhūma, madhūlī and nandīmukhī; mudga is of two types: kṣetramudga and vanamudga; masūra is of two types: a black type called masūra, and a pale type called maṅgalya; kalāya is of two types: tripuṭa and vartula; śaṇa is of two types: śaṇa and paṭaśaṇa; kodrava is of two types: kodrava and vanakodrava, also called uddālaka[641] or yāvanāla; śyāmāka is of three types: toya-, uṣṭra-, and hastiśyāmāka.[642]

Kṛṣṇadatta sometimes tries to reconcile conflicting statements found in earlier treatises by tortuous arguments, while in other cases he decides in favour of one of the early authorities.[643]

Kṛṣṇadatta gives ample proof that he was well versed in grammar.

Authorities and works quoted or referred to by him are: *Abhidhānacūḍāmaṇi*, *Agniveśaśāstra*, Amara, Aruṇadatta, Bhāvamiśra, Brahmadeva, Cakrapāṇi, Caraka, Ḍalhaṇa, *Dhanvantarinighaṇṭu*, Gayadāsa, Hārīta, Hemādri, Jaijjaṭa, Kaiyadeva, Khāranādi, Locana,[644] Mādhavakāra('s *Dravyaguṇa*), Medinī, *Mitākṣarā*, Muni, *Nairukta*, *Nighaṇṭu*, *Śabdārṇava*, *Saṃgraha*, *Saṃgrahabodha*,[645] *Sārasaṃgraha*, *Siddhamantraprakāśa*, Siṃha, Suśruta, *Trikāṇḍaśeṣa*, *Triśatīṭīkā*, Trivikrama, Vāgbhaṭa, *Vāgbhaṭīyasaṃgrahabodha*,[646] Vāpyacandra, and Vyāḍi.[647]

Kṛṣṇadattamiśra was the son of Śivadattamiśra, the author of the *Śivakoṣa*. He was born in Kāśī, but settled probably in the Pañjāb.[648] His commentary may have been composed around A.D. 1700.

The author

Trimalla(bhaṭṭa),[649] a brāhmaṇa,[650] was the eldest of the three sons of Vallabha,[651] a specialist in Vedic studies, and a grandson of Siṅgaṇṇabhaṭṭa,[652] who lived in Kāśī. The latter was a famous man, honoured by kings, a devotee of Śiva, of a family of Āpastambas surnamed Āravella,[653] and coming originally from Koḍapallī[654] in the Telugu country.[655]

Trimalla wrote his works in Tripurāntakanagara.[656] He sometimes refers to his guru, without mentioning his name.[657] Trimalla's son Śaṃkarabhaṭṭa was the author of the *Rasapradīpa*.[658]

Date

Trimalla's chronological position has been a matter of controversy. Some authors assign him to the period between A.D. 1382/83 and 1498/99.[659] This dating, proposed for the first time by H.D. Velankar,[660] is based on the quotations from the *Vīrasiṃhāvaloka*[661] in the *Yogataraṅgiṇī* and the date of completion of a MS of Trimalla's *Śataślokī*, described by Rājendralāl Mitra.[662] Atrideva[663] was of the opinion that Trimalla lived in the period between the *Śārṅgadharasaṃhitā* and Bhāvamiśra's *Bhāvaprakāśa*, because the former is quoted, and because the term phiraṅgaroga, appearing for the first time in the *Bhāvaprakāśa*, is not yet employed by him.[664] On the latter point Atrideva

is wrong, which invalidates his conclusion that Trimalla composed his works in the beginning of the sixteenth century. B. Tripāṭhī[665] has advanced the view that Trimalla is somewhat later than Lolimbarāja, who is quoted by him. Bhagvat Sinh Jee's date of composition[666] of the *Yogataraṅgiṇī*, A.D. 1751, is much too late since the work is quoted in Vidyāpati's *Vaidyarahasya*.

P.V. Sharma has brought forward that Trimalla must have flourished in the middle of the seventeenth century,[667] because Bhāvamiśra and Lolimbarāja are quoted by him, and the *Yogaratnākara*, dating in his opinion from the last part of the seventeenth century, quotes the *Yogataraṅgiṇī*.

There is much in favour of this view, which implies that the dating of the Calcutta MS of the *Śataślokī* must be regarded as untrustworthy.

P. Hymavathi is convinced that Trimalla belonged to the second half of the sixteenth century; his arguments are that Trimalla quotes the *Bhāvaprakāśa*, while the *Yogaratnākara* is acquainted with Trimalla's works.[668] As a corroborative piece of evidence, he refers to a grant of land to Trimalla's brother Rāma, made in A.D. 1580.[669]

Some early MSS of works by Trimalla were completed in 1646/47,[670] 1658,[671] 1663/64,[672] and 1668/69.[673] The lower limit of the period of Trimalla's literary activity, provided by these dates, is confirmed by quotations from Trimalla and his *Yogataraṅgiṇī* in Vidyāpati's *Vaidyarahasya*, dating from A.D. 1697/98.[674] The upper limit must be about A.D. 1600, since Bhāvamiśra and Lolimbarāja are quoted by Trimalla. It can therefore be concluded that Trimalla flourished in the first half of the seventeenth century.

As pointed out by S.L. Katre,[675] the edited text of the *Bṛhadyogataraṅgiṇī* probably contains some material added to its original version, because Raghunātha's *Vaidyavilāsa*, composed towards the end of the seventeenth century, is quoted in it.

Vaṃśīdhara

Vaṃśīdhara,[676] father of Vidyāpati,[677] who composed the *Vaidyarahasya*, wrote the *Vaidyakutūhala*[678] and *Vaidyamanotsava*.[679] Since Vidyāpati composed his work towards the close of the seventeenth century, Vaṃśīdhara can be assigned to the third quarter of that century.

Vidyāpati

Vidyāpati was the author of the *Cikitsāñjana* and a therapeutic treatise with the title *Vaidyarahasya*.

The Cikitsāñjana[680]

The treatise consists of a collection of prescriptions and comprises 267 verses.[681] It opens with a maṅgala addressed to Arjuna, followed by two introductory verses. The author states in the second introductory verse that his work contains prescriptions from both prākṛta[682] and ancient physicians, as well as some tested by himself. The prescriptions are preceded by verses on the examination of the pulse (7–16) and urine (17–18),

on incurable disorders (19), and on the alleviation of excited doṣas (20–23).

The remaining part of the work deals with the treatment of a number of diseases which are inconveniently arranged, although Vidyāpati follows broadly Mādhava's order in his other treatise, the *Vaidyarahasya.* Some disorders are not dealt with at all, for example raktapitta, vātarakta, upadaṃśa, śūkadoṣa, visarpa, and viṣa. Also absent are somaroga, śītalā and phiraṅga, which are mentioned in the *Vaidyarahasya;* snāyuka, however, is present (182).

The prescriptions are mainly of the classical types, with a preference for those called kvātha, cūrṇa and lepa; some rasayogas are prescribed for the treatment of fevers.

The materia medica presents almost no particularities.

The last verse refers to the author's indebtedness to Nayanasukha's *Manomahotsava.*[683]

Vidyāpati included in his treatise a prescription against lūtā (167).[684] A magical square (yantra), called ṣaṭtriṃśaka, is mentioned (228), which, drawn on a piece of birch bark and tied to the head, relieves headaches.[685] The verses on women's diseases (233–251) are for the greater part devoted to subjects such as promoting fertility, preventing abortion, tightening the vagina, and increasing the firmness of the breasts, but some diseases, for example fluor albus and mastitis are also dealt with. The verses on disorders of the male (puṃstvaroga; 252–266) contain measures to increase the size of the male member, promote potency, delay ejaculation, and remove a disagreeable smell. One of the prescriptions for enlarging the penis (252) says that particular pills should be soaked in the patient's own urine before daubing his penis with the substance.

Noteworthy medicinal substances mentioned are kuhelā (245) and mlecchajavānikā (259).[686]

The Vaidyarahasya[687]

The treatise consists of about 1,900 verses, arranged in more than seventy chapters. The order of the diseases is broadly the same as in the *Mādhavanidāna*, apart from a number of additions: jvarātisāra, raktātisāra, plīhan, yakṛdroga, kārśya, agnidagdha, snāyuka, phiraṅgavāta, rasāyana, and vājīkaraṇa; bradhma (aṇḍavṛddhi 18), somaroga (strīroga 18 and 23) and śītalājvara (masūrikā 9) are also mentioned without a separate chapter being devoted to these disorders. Some contraceptive and abortifacient formulae are found in the chapter on disorders during pregnancy (garbhavatīcikitsā 31–35). Prodromes, symptoms, etc., are rarely enumerated; exceptions are e.g., aupatyakajvara (jvara 145–146), āma- and pākvatisāra (atisāra 4–5). Usually, mention is made of what is wholesome (pathya) and unwholesome (apathya) in a particular disease.

Vidyapāti's therapeutics, which he calls saṃpradāyacikitsita (jvara 230), is of a mixed type, which employs both āyurvedic prescriptions and rasayogas; the latter are not dealt with separately but they occur scattered among the former. The āyurvedic preparations are for the greater part of the traditional types (kvātha, cūrṇa, ghṛta, taila, etc.), but a number of pākas is also described.[688] Religious and magical elements are infrequent.[689] Opium, Cannabis, akārakarabha, jayapāla, and mājūphala are repeatedly

prescribed.

Sources mentioned are: *Bhāvaprakāśa* (kuṣṭha 8 and 21; gaṇḍamālā 17), Caraka (vātavyādhi 91), Gopāla[690] (phiraṅga 10), Lolimbarāja[691] (agnimāndya 19), Śārṅgadhara (vātavyādhi 91), Trimalla (aṇḍavṛddhi 20), and *Yogataraṅgiṇī* (ślīpada 5; gaṇḍamālā 18).

Vidyāpati's *Vaidyarahasya* is quoted in the *Bṛhadrasarājasundara* and *Rasayogasāgara.* A *Vaidyarahasya* was one of the major sources of the *Amṛtasāgara.*

Interesting names of disorders are: aupatyakajvara (jvara 145–146),[692] dohadodbhūtanirnāmikā (bālaroga 24), durjaladoṣaja jvara (jvara 187cd–188ab), janmaśūla (śūla 16), jaratpitta (śūla 36), kūlaka (vātavyādhi 90), nāsābhaṅga (phiraṅga 38), nirnāmā (bāhyā and ābhyantaragā; bālaroga 24), nirnāmikā (bālaroga 22), śītalājanita puṣpa (netraroga 68), śūnyatā (kuṣṭha 48), vraṇagranthi (i.e., keloid; agnidagdha 8), and vārāhadaśanāhvaya (kṣudraroga 16).[693]

Noteworthy names of vegetable substances are: alābukhārā (jvara 210), the gum of the babbūla tree (prameha 17), candrasūra (hikkā 7; vātavyādhi 52), dārucīnī (prameha 12), gaṇḍagopālikā (gaṇḍamālā 5), hauhavera (strīroga 20), kahelī (strīroga 19), kuhū (prameha 23), māī (garbhavatī 41), mihandikā (vraṇaśotha 40), pikākhya (garbhavatī 43),[694] revaccīnī (prameha 19), śikharī (kuṣṭha 52),[695] and śvetasnuhī (agnimāndya 49).

Other medicinal substances of interest are the flesh of an animal called cikhurī- (aṇḍavṛddhi 20),[696] gurjaradeśajātayavakṣāra (bālaroga 22), gajavelī (a kind of iron; netraroga 55), mlekṣakṣāra (bhagandara 11), muradāśaṅkha (phiraṅga 5; kṣudraroga 7; śiroroga 41), mūrdaśaṅkhaka (vraṇaśotha 38), nṛmadhusamuttha (bhagna 9), sābuna (śiroroga 40),[697] and soraka (phiraṅga 5).

Some of the recipes contain vernacular names of medicinal substances such as āvarā (śiroroga 42; mukharoga 15), chārū (śiroroga 41), kaccīlākha (mukharoga 15), kāviyāsindūra (śiroroga 40), khaira (śiroroga 42), līlavarī (śiroroga 42), nīlāthothā (śiroroga 42; mukharoga 15), and phiṭkarī (mukharoga 15).

The author

Upādhyāya[698] or Miśra[699] Vidyāpati[700] was the son of Vaṃśīdhara, who wrote the *Vaidyakutūhala* and *Vaidyamanotsava.* He was a brāhmaṇa hailing from Mithilā,[701] who adorned the court of Śivasiṃha and other kings.[702] The name of his teacher may have been Candrabhānu Mahādeva.[703] Vidyāpati was a devotee of Arjuna.[704]

Date

The *Vaidyarahasya* was written in A.D. 1697/98.[705] The date of composition of the *Cikitsāñjana* is unknown, but it may be earlier than the *Vaidyarahasya.*

Vinayamerugaṇi

Vinayamerugaṇi, a Jain monk, pupil of Hemadharma of the Kharataragaccha, compiled a collection of recipes called *Vidvanmukhamaṇḍanasārasaṃgraha.*[706]

One of his pupils, Mānakavi or Mānamuni, wrote two medical treatises in Rājasthānī, called respectively *Kavivinoda* and *Kavipramoda*. Vinayameru lived in the last quarter of the seventeenth century.[707]

Vīreśvara

Vīreśvara, son of Devīdāsa, grandson of Dvivedaraghuvaṃśa, pupil of Vihārīlālamiśra (a gauḍa, who resided in Argalāpura), wrote the *Rogārogavāda*[708] in Iṣṭakāpatha in A.D. 1668/69.

It is an interesting work of a dialectical nature, which enters into a discussion of the views of ancient scholars of medicine. Vagbhaṭa's *Aṣṭāṅgahṛdayasaṃhitā* was Vīreśvara's chief authority and is often quoted together with two commentators on that treatise, Aruṇadatta and Hemādri. Other sources quoted are Caraka, Mādhava and Suśruta.[709]

Yaśaḥcandra

Yaśaḥcandra wrote the *Sarvasāra* in 1688/89.[710]

Chapter 3
Eighteenth-century authors and works

Ānandavarman

Ānandavarman, author of the *Sārakaumudī*, is assigned to the middle of the eighteenth century.[1]

Anaṅga Kavirāja

Anaṅga Kavirāja, who enjoyed the patronage of the Ahom monarch Lakṣmīsiṃha (A.D. 1769–1780), composed a voluminous work called *Vaidyakalpataru*.[2]

Ananta

Ananta, of Dadhīci family, son of Keśavarāya, composed at the behest of Mahārāja Pratāpasiṃha of Jaypur[3] (A.D. 1778–1803) in 1792/93 the *Pratāpakalpadruma*, also called *Anantaprakāśa*, a work in twenty-four chapters.[4]

Sources referred to by Ananta are:[5] *Ānandamālā, Bhāgavata, Bhāvaprakāśa*, Caraka, *Cikitsāmṛtasāgara, Cikitsāsara*, Dāmodara, *Gāruḍīsaṃhitā*,[6] Hārīta, *Hitopadeśa, Jvaratimirabhāskara, Kutūhala, Lakṣmaṇotsava, Ratnabhūṣaṇa*,[7] *Ṛtucaryā, Siddhāntaśiromaṇi*,[8] *Śirājagrantha*(?),[9] Suśruta, *Ṭoḍarānanda*, Vāgbhaṭa, *Vaidyakasāroddhāra, Vaidyapaddhati, Vaidyarahasya, Vaidyaratna, Vaidyasaṃjīvanī*,[10] *Vaidyasāra, Vaidyavinoda, Vidvajjanarañjana*,[11] and Vṛnda.[12]

Bālarāma

Bālarāma, author of the *Ātaṅkatimirabhāskara*, is assigned to the eighteenth century.[13]

Raghunāthajī Indrajī, the author of the *Nighaṇṭusaṃgraha*, borrowed the description of tea from the *Ātaṅkatimirabhāskara*.[14]

Basava

Basava was the author of the *Śivatattvaratnākara*.

The *Śivatattvaratnākara*[15] is a large encyclopaedia,[16] which contains the following subjects of medical interest:[17] āyurveda as an upaveda of the *Ṛgveda* (I.2.15);[18] a definition of the term āyurveda (I.2.16cd-17ab); measures of length (II.1.6cd–11);[19] diseases caused by sins committed in previous lives (II.3); grahas (III.1.28–47);[20]

kālajñāna and ariṣṭas (V.1.62–88ab); dreams (V.3);[21] omina (śakuna; V.8);[22] definitions of a good cook (sūda), bhiṣaj, and vaidya (V.15.91cd–99ab);[23] vṛkṣāyurveda (VI.10 and 11);[24] kāmaśāstra (VI.12 and 13.1–127);[25] inunction (abhyaṅga) and anointing (vilepana) of a king's body (VI.14.22–88);[26] the art of perfumery (gandhayukti; VI.15);[27] precious stones (VI.17);[28] prepared foods (VI.18 and 19);[29] medicine (VI.21);[30] properties of articles of food and some other substances, together with related subjects (VI.22.1–38ab); the formulae of eight important rasayogas (VI.22.47–98); alchemy and iatrochemistry (VI.22.99–130ab; VI.23, 24 and 25); toxicology (VI.26–27);[31] indrajāla (VII.2: quoted from the *Haramekhalikātantra*);[32] characteristics of the female (VII.9) and the male (VII.10) body and their meaning;[33] elephant-lore (VII.11);[34] aśvaśāstra and some other subjects related to veterinary science (VII.12 and 13).[35]

Special features

Interesting subjects are: some names of vegetables: śakaṭa, mahābāṣpa, goṇī, and gandhalakṣmī (VI.18.121); some prepared dishes: doṣaka (VI.19.16cd–17ab), iḍḍalikā (VI.19.17cd–21ab), and varṣelaka (VI.19.27cd–33ab); a description of the descent of āyurveda to the human world (VI.21.4–5);[36] definitions of the eight limbs of āyurveda: kāyatantra, bālatantra, grahatantra, śālākyatantra, śalyatantra, agadatantra, rasāyanatantra, and vṛṣatantra (VI.21.8–14); the three doṣas (VI.21.23–39, 46–47ab, 54, 97–108ab);[37] the digestive fire (VI.21.25cd–26ab, 40–41);[38] the amount of time required for the digestion of various substances (VI.21.42–45);[39] the six tastes (VI.21.47cd–53);[40] the eightfold examination of a patient (VI.21.55); the examination of the pulse (VI.21.56–96);[41] fevers (VI.21.110cd–137ab);[42] groups of drugs (VI.21.137cd–178);[43] types of country (deśa) and soil (bhūmi) (VI.21.186cd–197ab);[44] the definition of a rasavaidya (VI.23.56–57); lists of plants employed in the various processes (saṃskāra) to which mercury is subjected (VI.24.2–33); the eighteen saṃskāras of mercury (VI.24.50–182ab);[45] descriptions of the human constitutions (sāra and prakṛti) (VII.10.159–164 and 170–173).[46]

The chapter on perfumery (gandhayukti; VI.15) mentions five basic processes (saṃskāra): mardana, svedana, lepana, dhūpana, and saṃvāsana (15.6cd–9).

The chapter on precious and semi-precious stones (VI.17) describes five mahāratnas: diamond (vajra), pearl (muktāphala), ruby (māṇikya), sapphire (nīla), and emerald (marakata), and five uparatnas: puṣparāga, vaiḍūrya, gomeda, sphaṭika, and pravāla.

Some subjects dealt with in the chapters devoted to alchemy (VI.22–25) are: a list of eight mahārasa(yoga)s, called sarveśvara, pūrṇacandrodaya, rājamṛgāṅka, mālinīvasanta, vasantakusumākara, trailokyacintāmaṇi, mahābhūpati, and lakṣmīvilāsa (22.47–48); the formulae of these rasas (22.49–98);[47] the naisargikamalas of mercury: pārthiva, āpya, āgneya, ānila, nābhasa, gajacarmākhya, puṇḍarīka, visarpaka, hāridra, raktacarmākhya, nāraṅga, raktabinduka, asahyāgni, and maṇḍūka (VI.23.34–35); the seven kañcukas: kālikā, mālinī, kapotī, raktikā, (s)alomī, girijā, and piṅgalī (VI.23.36–37ab); the three yaugikamalas: viṣa, nāga, and vaṅga (VI.23.37cd); the preparation of some sindūras (22.107cd–112); the description of some bhasmans (22.113–118ab); measures (22.118cd–126ab);[48] the storage life (vīryāvasthitikāla) of various pharmaceutical preparations (22.126cd–128ab); dosages (22.128cd–130); the five avasthās of mercury (23.32–33); the doṣas of mercury (23.34–44); the eight mahārasas: bhūnāga, ghana (= abhraka), vaikrānta, vimalā, tāpya, tutthaka, kharparī, and rājāvarta (23.58);[49] the eight uparasas: gandha, kaṅkuṣṭha, kāsīsa, (manaḥ)śilā, kāṅkṣī, varāṭikā, gairika, and tālaka (23.59cd–60ab);[50] a series of six sādhāraṇarasas: girisindūra, podāraśṛṅgi,[51] gauriśilā (= gaurīpāṣāṇa), añjana, kampilla, and capala (23.60cd–61ab);[52] a series of four śaktirasas: hiṅgula, sasyaka, śilājit, and agnijāraka (23.61cd–62ab);[53] a series of five uparatnas; sphaṭika is of three types: sūryakānta, candrakānta, tārakānta, to which some add lohakānta as a fourth type (23.63cd–64ab).[54]

The divyauṣadhis enumerated are: atasīvallī, bhagavallikā, bhūtakeśī, bhūtumbī, bilvinī, brahmāṇī, camarikā, caṇḍālī, devadālikā, gāndharvī, garuḍavallikā, gomārī, gośṛṅgī, īśvarī, jyotirlatā, kākinī, karīraka, karīravallarī, kṛṣṇavallarī, kṣatriṇī, kūrmalatā, laśunavallarī, locanalatā, mādhavī, mahāmāṣa, mahauṣadhī, maṇḍūkī, mūlakandaka, munivallikā, nimbā vallī, padminī, pītavallī, raktalatā, rohiṇī, rudantī, tāmravallikā, tilakanda, triśūlinī, tumbinī, vīravallī, and vyāghrapādī (24.2–7ab).

The very potent (mahābala) vanauṣadhis are: alambusā, aparājitā, ardhacandra, candrikā, cintyā,[55] citrapattrā, durgandhā, hemapuṣpī, jalahemāgama, jalakumbhī, jalamūlaka, jalapippalī, jālinī, jalotpalā, kākamācī, kapotī, karṇisphoṭī, kṣīriṇī, māṃsī, maṇḍūkī, meghanādī, musalī, nandinī, pāṣāṇī, patākī, rasā,[56] rohiṇī, samaṅgā, sārivā, śikhā, śikhipādā, śītagandhinī, sthalaprasāriṇī, śukanāsikā, tulasī, tuṣāmbu, uttamā, vanakūṣmāṇḍavallī, vāyasī, veṇukā, and vṛścikālī (24.7cd–13ab).[57]

The list of niyāmaka plants (24.15–22) reproduces, more or less, *Rasendracūḍāmaṇi* 8.1–8ab; the list of bhasmakara plants (24.23–33) has also been borrowed, with a number of variants, from the *Rasendracūḍāmaṇi* (8.9cd–20).

The eighteen saṃskāras listed (24.50–54) and described (24.55–182ab) are: svedana, mardana, mūrchā, utthāna, pātana, rodhana, niyāma, dīpana, anuvāsana, cāraṇa, jāraṇa, garbhadruti, bāhyadruti, rāga, sāraṇa, anusāraṇa, krāmaṇa, and vedha. Two types of mukha are mentioned: divya and āsura (24.112cd–113). Jāraṇā is of two varieties: bāla- and baddhajāraṇā (24.119). Pratisāraṇa, not listed as a distinct saṃskāra, is described (24.161–164). Five types of vedha are distinguished: lepa-, kṣepa-, kunta-, dhūma-, and śabdavedha (24.168–174ab).

The yantras described are: dolā-, adhaḥpātana-, tiryakpātana-, kacchapa-, ūrdhvapātana-, āntarālika-, tāpikā-, pratigarbha-, dvipālikā-, puṭa-, vidyādhara-, ḍamaruka-, nābhi-, garta-, ḍeṅki-, somānala-, and nālikāyantra (25.17cd–59).[58] Yantras mentioned only are: vaḍavānala-, dhūpa-, kanduka-, khecara-, sthālikā-, tulā-, lavaṇa-, iṣṭikā-, and koṣṭhayantra (25.61–62).[59] The mūṣās are referred to (25.63–68);[60] the ususal types of puṭa are characterized (25.69–82ab).[61]

Some sources[62] mentioned at the end of kallola six are: the Aśvins, Dattila,[63] *Dhanvantarimata, Gaurīmata, Gītaratnākara,*[64] *Nalamata,*[65] Kohalaka,[66] *Mayamata,*[67] *Prayogasāra,*[68] *Rasahṛdaya, Rasaratnākara,* Śārṅgadhara, *Utpalaparimala,*[69] *Viśvakarmamata,*[70] *Vihagendrasaṃhitā,*[71], and *Yogaratnāvalī.*

Some sources referred to at the end of kallola seven are: Amṛtānanda,[72]

Haramekhalikātantra,[73] *Kautukacintāmaṇi, Mānasollāsa, Merutantra,* Nakula,[74] Nala, Pālakāpya, Śālihotra, Vāgbhaṭa, and Vidyānātha.[75]

The author
Basava Bhūpāla[76] (1684–1710)[77] was the last ruler of the Keladi kingdom, which flourished from A.D. 1499 to 1763 in the area corresponding to the coast of Karṇātaka from Goa in the north to Cannanore in the south.[78] Keladi was also known as Ikkēri, and its rulers, who professed Vīraśaivism,[79] were great patrons of literature and architecture.[80]

Basava Bhūpāla also wrote the *Subhāṣitasuradruma* (in Sanskrit),[81] the *Sūktisudhākara* (in a mixture of Sanskrit and Kannaḍa), and a commentary (in Sanskrit) on the *Siddhāntaśikhāmaṇi.*[82]

The genealogy of Basava Bhūpāla's family forms part of the *Śivatattvaratnākara.*[83] He was the son of Somaśekhara and Cannāmbikā or Cennāmbikā,[84] a pupil of Cannavīrakara, and a patron of Cokkanātha, author of the *Kāntimatīpariṇaya.*[85]

Date
The *Śivatattvaratnākara* was completed in 1709.[86]

Cainarūpa

Cainarūpa, a Jain author, who probably lived in Bīkāner, wrote in 1778/79 a *Pathyāpathyastabaka.*[87]

Cakrapāṇidāsa

Cakrapāṇidāsa, son of Parāṅkuśa, completed his *Abhinavacintāmaṇi* in 1799.[88]

Contents
This treatise is arranged in sixty-six chapters (kiraṇa). Chapters one to four deal with māna and paribhāṣā, rasādiśuddhi, kalādidvādaśatattva, and nāḍyāditrayodaśatattva. Chapters five to sixty-three are concerned with the treatment of diseases. The last three chapters are about rasāyana, vājīkaraṇa, and vamanādi, along with ṛtucaryā. The arrangement of the diseases generally agrees with the order adopted in the *Mādhavanidāna.* The recipes begin with kvāthas, cūrṇas, etc., followed by rasayogas, and end with tailas and ghṛtas. The treatise is a compilation derived from various sources, but the original texts have been modified.

Special features
Minor deviations from the arrangement of the diseases in the *Mādhavanidāna* are: a separate chapter on kāmalā and halīmaka; separate chapters on śvāsa and hikkā; vraṇaśotha, śārīravraṇa, sadyovraṇa, bhagna and nāḍīvraṇa are discussed in one chapter, as well as visarpa and visphoṭa; pradara, yonivyāpad, mūḍhagarbha and sūtikāroga are dealt with collectively in a chapter on strīroga. Special emphasis is laid on astrological and religious aspects of therapy. A new disorder described is amlapittajvara.[89]

Diler Jang

Diler Jang was the author of the *Dinacaryāpaddhati.*[90]

Dīpacandra

Dīpacandra, with the title of Vācaka, was the author of the *Laṅghanapathyanirṇaya,*[91] a work on fasting and diet, especially in the treatment of fevers. The treatise consists of a laṅghanaprakaraṇa on fasting in 215 and a pathyaprakaraṇa on wholesome articles of diet in 116 stanzas.[92]

The following sources are quoted: *Amṛtasāgara,*[93] *Ānandamālā* (by Ānandabhāratī Yatīndra), *Bhāvaprakāśa,* Bhela, *Bhiṣakcitracittotsava,*[94] *Cakradatta,* Caraka, *Cikitsāmṛta(sāgara),*[95] *Cikitsāratnabhūṣaṇa,*[96] Dāmodara, *Gāruḍīsaṃhitā,* Hārīta, *Hitopadeśa,*[97] *Jvaratimirabhāskara* (by Cāmuṇḍa), *Kālajñāna, Kṣemakutūhala, Lakṣmaṇotsava, Mādhavanidāna, Siddhāntaśiromaṇi,*[98] *Sūpakāragrantha,* Suṣeṇa, Suśruta, Ṭoḍarānanda, Vāgbhaṭa, *Vaidyakasaṃjīvana,*[99] *Vaidyakasārasaṃgraha,*[100] *Vaidyasarvasva,*[101] *Vaidyavinoda,*[102] Vaṅgasena, *Vṛddhasuśruta, Vṛddhavṛnda,* and Vṛnda.[103]

The author and his date
No particulars are known about the author, except his being a Jaina, as appears from his title Vācaka. He composed his work in 1735/36 under the reign of Jaisiṃha II of Jaypur.[104] He was a pupil of Dayātilakopādhyāya[105] and belonged to the tradition of Jinadattasūri.[106] Other works of the same author are a Hindī commentary on Kalyāṇadāsa's *Bālatantra* and an unspecified *Vaidyakagrantha.*[107]

Ekojī

Ekojī, one of the Maratha kings of Tanjore, is credited with a work called *Āyurveda.*[108]

Gopāladāsa Vaidya

Gopāladāsa Vaidya, son of Siddheśvara and grandson of Rāmarāma of Dvārandhra, was the author of the *Yogāmṛta,* written in 1771/72. This work is provided with an autocommentary called *Subodhinī.*[109]

Govindadāsa

Govindadāsa was the author of the *Bhaiṣajyaratnāvalī,*[110] a very large treatise, mainly in verse, on therapy and a number of other subjects. The 12,360 verses of the work are arranged in 106 chapters (prakaraṇa).

Contents

Chapter one describes the descent (avatāra) of āyurveda to the human world in its own way, thereby mentioning Caraka, Suśruta and Vāgbhaṭa as the three great masters of the medical science. Chapter two is about the purification (śodhana) and killing (māraṇa) of a series of substances used for iatrochemical purposes.[111] Chapter three (miśravargaprakaraṇa) is concerned with various general subjects connected with medicine. Chapter four (paribhāṣāprakaraṇa) is about weights and measures (1–14), groups of medicinal substances (15–44), some medicinal preparations (45–56), substitutes for rare drugs (57–100), and subjects related to the preparation of drugs (101–130).[112]

Chapters five to seventy-two are concerned with the treatment of diseases, for the greater part arranged in agreement with the *Mādhavanidāna*.[113] Verses on nidāna are absent. The rasauṣadhas are preceded by āyurvedic prescriptions. Chapter seventy-three deals with rasāyana, seventy-four with vājīkaraṇa, seventy-five with the suppression of ejaculation (vīryastambha).

Chapters 76–106 describe diseases, together with their treatment, which are absent from the *Mādhavanidāna*. Three pariśiṣṭa chapters are about pittaroga, kapharoga, and some especially efficient formulae (anubhūtayoga), which are said to derive from Rājeśvaraśāstrin.[114]

Sources are not mentioned in the body of the text.[115]

The *Bhaiṣajyaratnāvalī* is quoted in Ambikādattaśāstrin's commentary on the *Rasendrasārasaṃgraha*, Āśubodha and Nityabodha Senagupta's commentary on the *Rasaratnasamuccaya*, the *Āyurvedīya Khanijavijñāna*, Gulrājśarmamiśra's *Viśikhānupraveśavijñāna*, Hariprapanna's *Rasayogasāgara*, Hariśaraṇānanda's *Kūpīpakvarasanirmāṇavijñāna*, Jīvānandavidyāsāgara's commentary on the *Rasendrasārasaṃgraha*, Nirañjanaprasāda Gupta's *Pāradasaṃhitā*, the *Rasadhātuprakāśa*, and Yādavajī Trikamajī Ācārya's *Rasāmṛta* and *Siddhayogasaṃgraha*. It was one of the sources of Āryadāsa Kumārasiṃha's *Kvāthamaṇimālā*, the *Bheṣajasaṃhitā*, Devasiṃha Viṭṭhal's *Bṛhadāsavāriṣṭasaṃgraha*, Viśvanātha Dvivedī's *Rasendrasambhava*, and the *Rasoddhāratantra*.

Special features

In contrast with the *Mādhavanidāna*, two separate chapters are devoted to jvarātisāra (6) and plīhayakṛdroga (41). The treatment of one series of thirteen saṃnipāta fevers is described: śītāṅga, tandrika, pralāpaka, raktaṣṭhīvin, bhugnanetra, abhinyāsa, jihvaka, sandhika, antaka, rugdāha, cittabhrama, karṇika, and kaṇṭhakubja (5.277–324). An unusual fever is nāsikājvara (5.1410–1413).[116] The chapter on atisāra mentions the treatment of śothātisāra (7.77–78). The chapter on vātavyādhi has two different lists of gandhadravyas to be used in the preparation of fragrant oils (26.302 and 303–306); the same chapter describes the purification (śuddhi) of aromatic substances and refers to techniques of gandhaśāstra (443–469); it also deals with tests giving answers about the genuineness or adulteration of fragrant substances (470–507).[117] The chapter on masūrikā refers to the śītalāstotra (59.44) and mentions some other deities to be invoked in this disease (59.42–43). The chapter on diseases in pregnant

women describes the ubhayatriṃśaka and ubhayapañcadaśa yantras (68.64–66); it also refers to the rākṣasī Jambhalā, who procures an easy delivery (68.67). Rāvaṇa's *Kumāratantra* is quoted in the chapter on children's diseases (71.182–193); the same chapter mentions the disorders called āhiṇḍikā (71.13 and 16)[118] and paścādruj(a) (71.81 and 82). Each chapter closes with the enumeration of what is beneficial (pathya) and harmful (apathya) in a particular disease. The third pariśiṣṭa chapter mentions disorders called snāyudaurbalya and svapnameha.[119]

The most noteworthy feature of the *Bhaiṣajyaratnāvalī* consists of the description of a long series of diseases, together with their treatment,[120] which are for the greater part rare in other āyurvedic treatises and betray the influence of western medicine.[121]

These diseases, added in a viśiṣṭarogādhikāra (chapters 76–106) are: āmāśayaroga (76),[122] smaronmāda (77),[123] gadodvega, also called apadārtharoga (78),[124] tattvonmāda, also called brahmamoha (79),[125] acalavāta (80),[126] tāṇḍavaroga (81),[127] snāyuroga, also called snāyuśūla (82),[128] skhālitya (83),[129] khañjanikā (84),[130] urastoya (85),[131] bahumūtra (86),[132] somaroga, mūtrātisāra,[133] and madhumeha[134] (87), śukrameha (88),[135] aupasargikameha, also called pūyameha, vraṇameha, and āgantumeha (89),[136] ojomeha (90),[137] lasīkāmeha (91),[138] dhvajabhaṅga, also called klaibya (92),[139] vṛkkaroga (93),[140] klomaroga (94),[141] phiraṅgaroga, also called gandharoga (95),[142] snāyukaroga (96),[143] pāradavikāra (97),[144] śīrṣāmburoga (98),[145] mastiṣkavepana, also called śīrṣavepana and -vepathu (99),[146] mastiṣkacaya, also called mastiṣkavṛddhi, and mastiṣkāpacaya, also called mastiṣkahrāsa (100),[147] aṃśughāta (102),[148] yoṣāpatantraka, also called yoṣāpasmāra (103),[149] yonikaṇḍū (104),[150] aṇḍādhāraroga (105),[151] and apamumūrṣu (106).[152]

Chapters 76–106 contain a number of compound medicines, in particular rasayogas, thought to be specifics against diseases mentioned in these chapters.[153] Yogas described in preceding chapters (five to seventy–five) are repeatedly referred to.

Religious and magical practices said to cure particular diseases are also mentioned.[154]

The materia medica consists for the greater part of the usual āyurvedic and iatrochemical substances.

Noteworthy names of medicinal plants and plant products are:[155] ācu (54.353),[156] ākārakarabha (75.15), amlaloṇī,[157] āsāraṇa (5.672),[158] asraghnī,[159] asthikarkaṭa (5.430),[160] bakapuṣpa (32.39),[161] bakapuṣpikā,[162] bhadrotkaṭa (8.392; 69.21),[163] bhekī,[164] bhūkūṣmāṇḍa (74.59),[165] bhūmikūṣmāṇḍa,[166] bṛhadbhaṇḍī (pariśiṣṭa 2. 30),[167] camarīphala (45.48),[168] candraprabhā,[169] candraśūra (101.5), copacīnī (95.24), daṇḍinī,[170] dārusitā (16.108),[171] dhanīyaka (37.211),[172] dhavalāṅkaṭha (41.138),[173] gandhālikā,[174] gandhamātṛkā (26.305; 66.33),[175] gandhapattraka (26.508),[176] ghaṇṭakarṇa(ka) (56.58, 72, 89),[177] girikanyā,[178] guñjākinī (5.672),[179] hastiśuṇḍī (5.628; 82.20), hastiśuṇḍikā (5.658),[180] hemāmbhodhara (30.216), indrasūra (10.221;[181] 45. 48),[182] irima (61.104),[183] jalakarṇā (14.120),[184] jāmātar (56.79),[185] jayitrī (8.179),[186] kapihastaka,[187] kapotavaktraka (36.13),[188] karṇamoraṭa (5.1416),[189] kāṣṭhamārjārikā,[190] kāsunda (54.352),[191] keśākhya (5.575),[192] kiṅkinī (65.152 and 154),[193] kūlika (72.50),[194] kundakhoṭī (8.217),[195] mahādrekā (37.210),[196] maurvī,[197] mocaka (74.230),[198] nāgaparṇī,[199] padmāṭa (54.210; 61.106),[200] pītamūlī (98.9 and 11),[201]

rājahemaka (65.154),[202] rājasvarṇaka,[203] raktapuṣpa,[204] rocana,[205] śāliñca (5.576; 10.306), śāliñcī,[206] śālmalīmocaka,[207] saurī (26.503),[208] sudhāmūlī (15.194),[209] svarṇadhustūra (5.651),[210] śvetadhūnaka,[211] tīkṣṇaparṇa (5.650),[212] tripurabhaṇḍikā or -bhaṇṭikā (5.671),[213] tṛṇaparṇa (54.210),[214] ulla (56.59),[215] vaivasvatadruma (54.364),[216] vakama,[217] and vanasarṣapa (5.670).[218]

Inorganic substances mentioned are rasakarpūra (95.10–11) and soraka (89.22).

Distillation is clearly described in the verses on the preparation of mṛtasaṃjīvanī surā (5.1261–1272; 74.372–386).[219] Yantras used are the bakayantra (pariśiṣṭa 3.19), kacchapayantra (9.182), mocikā- and mayūrākhyayantra (5.1269; 74.376), and the gajakumbha (74.378).[220]

The third pariśiṣṭa chapter, containing recipes deriving from Rājeśvaraśāstrin, mentions kattīraka (51), khatamī (22), sālibāhvā (50), sāmudranārikela (42), tṛṇakānta (40), unnābaka (23), and vanapsikā (22). It refers to Yūnānī medicine (yāvana vaidyaka; 48), and gives the formula of a Yūnānī compound medicine, called yāvanaratneśvara or jawāhir mohrā (40–48).

The author

Govindadāsa[221] was the son of Candracūḍa and Ambikā.[222] He may have been a Bengal physician since the MSS of the *Bhaiṣajyaratnāvalī* are found exclusively in Bengal.[223]

Date

The work is usually assigned to the eighteenth century.[224] It has to be taken into account that chapters two and four, and in particular chapters 76–106, do not belong to the original text, but were probably added by Brahmaśaṃkara Miśra in the nineteenth century.

Guṇavilāsa

Guṇavilāsa, a Jain monk of the Kharataragaccha, wrote the *Guṇaratnaprakāśikā* in A.D. 1715/16.[225]

Haṃsarāja Pippalaka

Haṃsarāja Pippalaka, a Jain, was the author of the *Mūtralakṣaṇa*, a work dating from the eighteenth century of the Vikrama era, i.e., about A.D. 1650–1750.[226]

Jogīdāsa

Jogīdāsa, known as Dāsakavi, wrote the *Vaidyakasāra*, a therapeutic treatise, written in Rājasthānī on the request of Jorāvarasiṃha, eldest son of Mahārāja Sujānasiṃha of Bīkāner (1700–1735).

The author was a Śvetāmbara Jain monk, son of Jośīrāya. He completed his treatise in A.D. 1705/06.[227]

Kāpālika

Kāpālika wrote a monograph on eye diseases, the *Kāpālikagrantha* or *Netraroganidāna*,[228] under the reign of Shāhajī, one of the kings of Tanjore.[229]

Kāśīnātha

Kāśīnātha was the author of the *Laṅghanapathyanirṇaya*.[230]

Keśavarāma

Keśavarāma or Vyāsakeśavarāma was the author of the *Laghunighaṇṭa* or *-nighaṇṭu*, also called *Auṣadha-*, *Auṣadhi-* and *Oṣadhināmamālā*.[231]

Contents

The treatise consists of 237 verses which, the first and last verse excepted, enumerate the names and properties of a series of drugs of vegetable, animal and mineral origin.[232] The Sanskrit synonyms are preceded by their Gujarātī equivalents. The absence of a large number of important medicinal substances, e.g., aśoka, balā, candana, dantī, kuṭaja, mūrvā, lodhra, śigru, and yaṣṭimadhu, cannot be explained.[233] In general, it remains completely obscure on which grounds the author decided to include or omit particular items of the Indian materia medica.

Sources are not indicated but the resemblance of many of the strings of synonyms with those found in the *Dhanvantarīyanighaṇṭu*[234] indicate the author's indebtedness to that work and his lack of originality. The description of the medicinal qualities does, however, not tally with the *Dhanvantarīyanighaṇṭu*.

Special features

Although yavānī itself is not described, the author mentions pārasīkayavānī (67cd–68ab) and sugandhakarabha (68cd; called khurāsāṇī yavānī in Sanskrit) as two distinct plants.[235] Three types of punarnavā are referred to (172–173ab).[236] Opium and *Cannabis* are absent.

The author

At the end of the work the author mentions that his name is Vyāsakeśavarāma, pupil of Dhanvantari. He apparently belonged to Gujarāt because he included the Gujarātī names of the drugs described.

Date

The author is assigned to the end of the eighteenth century by the editors of the *Laghunighaṇṭa*.[237]

Lakṣmīcand

Lakṣmīcand, a Jain monk of the Kharataragaccha, pupil of Amaravijaya, wrote a *Vaidyakagrantha* in Hindī in the first half of the eighteenth century.[238]

Mahādevadeva

Mahādevadeva[239] was the author of the *Hikmatprakāśa*[240] and *Hikmatpradīpa*,[241] two treatises on Yūnānī medicine written in Sanskrit.

The *Hikmatprakāśa*[242] is a work of 1,910 verses arranged in three sections (khaṇḍa).

Contents[243]
Section one (seventy-nine verses) deals with the principles of Yūnānī medicine; it describes the four humours, their qualities and the grades of these qualities, the various powers (śakti) of drugs, the examination of the urine and that of the pulse. Section two (1,142 verses) is on medicinal substances, their names, varieties, properties and uses, both single and compound; substitutes are also mentioned in many cases. This section is divided into twenty-eight vargas; the drugs have been grouped together according to the initial letter of their name and according to the order of the Arabic alphabet. Section three (689 verses) describes in twenty-one vargas a number of medicinal preparations, also arranged in agreement with the Arabic alphabet.

The treatise is based on Persian medical works[244] which explains that it abounds in Persian and Arabic medical terms. These terms are often explained, either in the text itself or in the ṭīkā that acccompanies it. The Sanskrit or Hindī equivalents of the Persian names of drugs are rather frequently recorded. The names of diseases are for the greater part those known from āyurvedic treatises.

The *Hikmatprakāśa* is quoted in Mauktika's *Vaidyamuktāvalī*.

Special features
Disorders of the lungs (phupphusa) are often referred to (e.g., 2.58, 99, 606, 616). Some diseases mentioned without any Sanskrit equivalent are ahbal (2.974), khunāk (2.490; a disease of the throat),[245] nākhūnā (2.100, 949 and 1066),[246] ramad (2.153; an eye disease), and sojāka (3.666).[247]

The author
The author mentions his name and descent in one of the introductory verses: his name is Mahādevadeva,[248] son of Bālakṛṣṇadeva, grandson of Nṛsiṃhadeva. The frequent allusions to mythology[249] prove that he was a Hindu by faith.

Date
The treatise was, as indicated at the end, completed in A.D. 1773/74.[250]

Mahāprakāśa[251]

Mallinātha

Mallinātha, son of Seṅganātha, was the author of the *Pathyāpathyanirūpaṇa*, composed in 1720,[252] and the *Vaidyakalpataru* or *Kalpataru*.[253]

Mukunda

Mukunda, son of the astrologer (gaṇaka) Raṅganātha of Vātsyāyana lineage, was the author of the *Upacārasāra*,[254] a work on medicines and charms in five chapters: dravyajñaptinirūpaṇa (110 verses), rogavyaktinirūpaṇa (100 verses), kvāthādinirṇaya (210 verses), prakīrṇanirūpaṇa (64 verses), and rasādyupacāranirūpaṇa (232 verses).[255]

The *Upacārasāra* is quoted in Karandīkar's *Nidānadīpikā*.

The treatise was probably composed at the end of the eighteenth or beginning of the nineteenth century because Dinakara, an astronomer (jyautiṣa), son of Ananta and Gaṅgā, of Śāṇḍilyagotra, a resident of Golappa, wrote a commentary, called *Gūḍhaprakāśikā*, on it at Poona in 1818.[256]

Mukundadeva Mahārāja

Mukundadeva Mahārāja is the reputed author of the *Tailārṇava*, an elaborate treatise on medicinal oils probably composed in A.D. 1799.[257]

Nandakiśoramiśra

Nandakiśoramiśra, son of Veṇīprasāda, of Gautamagotra, composed his *Cikitsāsārasaṃgraha* in A.D. 1757/58, during the reign of Mādhava Rāo Scindia.[258]

Narasiṃhakavirāja

Narasiṃhakavirāja,[259] son of Nīlakaṇṭhabhaṭṭa,[260] pupil of Rāmakṛṣṇabhaṭṭa, preceptor of Vaidyacintāmaṇi, was the author of (1) *Madhumatī*,[261] (2) *Prayogāmṛta*,[262] (3) *Ratnamāla*[263] or *Rasaratnamālā*,[264] (4) a commentary, called *Siddhāntacintāmaṇi*, on the *Mādhavanidāna*,[265] (5) a commentary, called *Tattvaprakāśakaustubha*, on the *Carakasaṃhitā*,[266] and (6) the revised version of the *Dravyaguṇarājavallabha*.[267]

The *Madhumatī*, a treatise in 8,672 verses,[268] describes the therapy of diseases, which are arranged in agreement with the *Mādhavanidāna*; chapters on rasāyana and vājīkaraṇa are added. The last part of the work is about iatrochemistry; subjects dealt with are: rasaśodhana, rasamūrchana, rasabandha, rasamāraṇa, uparasādi, viṣādi, lauhasaṃskāra, lauhamāraṇa, anupāna.[269]

Narasiṃhakavirāja must have lived during the eighteenth century, because his pupil, Vaidyacintāmaṇi, composed his *Prayogāmṛta* towards the end of that century.

Nārāyaṇa Bhiṣaj

Nārāyaṇa Bhiṣaj[270] was the author of (1) *Karmaprakāśa,*[271] (2) *Vaidyacintāmaṇi,*[272] (3) *Vaidyāmṛta,*[273] (4) *Vaidyavṛnda,*[274] and (5) *Vātaghnatvādinirṇaya.*

Nārāyaṇadāsa Kavirāja

Nārāyaṇadāsa Kavirāja was the author of a number of medical works. His *Āyurvedaparibhāṣā,*[275] *Cikitsāparibhāṣā,*[276] *Paribhāṣā,*[277] *Upaskāracikitsāṅgaparibhāṣā,*[278] and *Vaidyaparibhāṣā,*[279] recorded in the catalogues and histories of Indian medicine, may well refer to one and the same work. He is also credited with a *Nānauṣadhaparicched*a,[280] with a commentary, called *Siddhāntasaṃcaya,* on Śārṅgadhara's *Triśatī,*[281] with the revised version of the *Dravyaguṇarājavallabha,* also called *Rājavallabhanighaṇṭu,*[282] and with the *Vyādhiśaṃkara.*[283]

Nidhi or Navanidhirāma

Nidhi or Navanidhirāma, son of Mahātman Sāhimalla, was the author of the *Yogasamuccaya,* composed in 1755/56.

Sources referred to in this work are: *Lakṣmaṇotsava, Rasamañjarī, Saṃnipātakalikā,* Śārṅgadhara, *Vaidyajīvana, Vaidyasāgara, Vaidyavallabha,*[284] *Vaidyavinoda, Yogacintāmaṇi,* and *Yogaśata.*[285]

Pītāmbara

Pītāmbara, a Jain monk, pupil of Jīva of the Āgamagaccha, is sometimes[286] said to be the author of the *Anupānamañjarī,*[287] a treatise in 151 verses on anupānas to be employed in order to counteract disorders caused by inorganic and poisonous substances, or to prevent the occurrence of these disorders.

The work is divided into six chapters (samuddeśa or paṭala), devoted respectively to disorders brought about by dhātus (chapter one), upadhātus (chapter two), poisons of vegetable origin (chapter three), and animal poisons (chapter four), to the killing (māraṇa) of the dhātus and upadhātus (chapter five), and finally to the anupānas to be prescribed in various diseases (chapter six).[288]

Pītāmbara wrote his work in Arjunapura or Ānāpura[289] of Kūrmadeśa[290] in the second half of the eighteenth century.[291]

The *Anupānamañjarī* is referred to in the *Amṛtasāgara* of Pratāpasiṃha.

Pītāmbara

Pītāmbara, pupil of Vinayasāgarasūri of the Vijayagaccha, wrote the *Āyurvedasārasaṃgraha,*[292] a collection of formulae in Mewāṛī prose.

The recipes, containing vegetable drugs only, were obtained from a number of physicians mentioned by name: Ṛṣi Khimsī, Jośī Bhagvandās, Ṭhākurśī Nāṇāval, Bālgiri, etc.

The work was completed in Udaypur in A.D. 1702/03.[293]

Pratāpasiṃha

Pratāpasiṃha, Mahārāja of Jaypur, son of Mādhavasiṃha and grandson of Īśvarasiṃha, who flourished in the latter half of the eighteenth century (1778–1803), is credited with the *Amṛtasāgara,* more probably written at his behest.[294] This work, originally written in Mārwāṛī, deals chiefly with nidāna and cikitsā.

Contents[295]

The treatise, composed in Sanskrit verse and Hindī prose, is arranged in four sections (khaṇḍa), divided into chapters (taraṅga).

The utpattikhaṇḍa has five chapters, which are about the descent of āyurveda, embryology, anatomy, and some general subjects. The vicārakhaṇḍa is arranged in twenty-three chapters, which are concerned with the examination of the pulse and other forms of parīkṣā, anupānas, alchemical yantras, the purification of the dhātus, etc., weights and measures, pharmaceutical preparations, the properties of drugs and articles of food, sneha, vamana, etc. The nidānakhaṇḍa describes in forty-four chapters the diseases, generally in the order of the *Mādhavanidāna.*The cikitsākhaṇḍa, also in forty-four chapters, is about treatment.

The *Amṛtasāgara* adds the following diseases to those described in the *Mādhavanidāna*: one series of thirteen saṃnipāta fevers (III.3; IV.3), āmavātasaṃgrahaṇī (III.7), bhasmaka (III.9; IV.9), a number of eighty-four vātarogas (III.16), the forty pitta and twenty kapha disorders (III.20), seven additional types of insanity (unmāda) (III.15),[296] vardhma (III.28; IV.28), snāyu and phiraṅgavāta (III.36; IV.36), somaroga and mūtrātisāra (III.41; IV.41), mantharajvara (III.42; IV.42),[297] and seven acquired types of klaibya (male infertility and impotency) (III.43).[298] The treatments consist of both āyurvedic prescriptions and rasayogas. Mantras are found in some chapters (IV.4, 15, 41), as well as yantras (IV.15 and 41).

The original *Amṛtasāgara* is referred to as prācīnāmṛtasāgara (III.18), purāṇāmṛtasāgara (III.19), and pūrvāmṛtasāgara (III.15).

Sources of Sanskrit verses are: *Anupānadarpaṇa* (II.4),[299] *Bhāvaprakāśa* (often), Mādhava (III.19), Manu (III.19), *Rasapradīpa* (II.3), *Ratnaprabhākara* (II.3),[300] Śārṅgadhara (II.7), and *Vaidyajīvana* (II.1).

Sources mentioned in the Hindī text[301] are: *Anupānamañjarī* (II.4),[302] Ātreya ((IV.26), *Ātreyamata* (III.26), *Bhāvaprakāśa* (often), *Bṛhannighaṇṭu* (II.16), *Cakradatta* (IV.12, 15, 16, 19, 24, 25, 26, 27, 43), Cakrapāṇidatta (III.3), Caraka (III.13 and 26; IV.25), *Dhanvantarisaṃhitā* (IV.11), Hārīta (III.42; IV.11), *Jvaratimirabhāskara* (III.2; IV.2), *Kāśīnāthapaddhati* (IV.11, 20, 27), Kṣīrapāṇi (III.42), Lolimbarāja (IV.1, 2, 3, 12), *Mādhavanidāna* (III.4, 15, 19, 27, 31, 42), *Manusmṛti* (III.19), *Nighaṇṭuprakāśa* (II.6), *Rājanighaṇṭu* (II.14, 16, 17, 19, 21), *Rasarājalakṣmī* (IV.11), *Rasaratnadīpa* (IV.19), *Rasaratnākara* (II.4), *Rasārṇava* (IV.19), *Rasasaṃgraha* (IV.34), Rāvaṇa's *Kumāratantra* (III.42), Rudradatta (IV.12),[303] Śārṅgadhara (II.4, 5, 7), *Sarvasaṃgraha*

(IV.8, 10, 12, 13, 20, 23, 26, 33),[304] *Śivamata* (IV.8), Suśruta (II.13 and 21; III.17, 26, 42), *Triśatagrantha* (IV.1),[305] *Uḍḍīśatantra* (IV.15), Vāgbhaṭa (II.1; III.26; IV.38), *Vaidyajīvana* (II.1; IV.1 and 9), *Vaidyakutūhala* (IV.32),[306] *Vaidyarahasya* (IV.3, 7, 8, 9, 10, 11, 12, 13, 15, 18, 19, 20, 21, 22, 23, 26, 27, 28, 29, 30, 32, 36, 38, 39, 40), *Vaidyaratna* (IV.31), *Vaidyavallabha* (IV.38), *Vaidyavinoda* (IV.1, 6, 8, 10, 11, 12, 13, 14, 15, 18), *Vaidyopacāra* (IV.14),[307] Vṛnda (IV.8, 12, 14), *Yogacintāmaṇi* (IV.3, 12, 41), *Yogaratnāvalī* (IV.15 and 24), and *Yogataraṅgiṇī* (IV.8, 9, 11, 16, 19, 20, 24, 27, 32).

The *Rājavallabhanighaṇṭu*

The *Rājavallabhanighaṇṭu*[308] is a nighaṇṭu dealing chiefly with articles of diet and related subjects. Its contents prove that it was intended for use at a royal court.

Contents[309]
The 971 verses of this treatise are arranged in six chapters (pariccheda). Chapters one, called prābhātika (26 verses), and two, called paurvāhnika (151 verses), are about dinacaryā and kindred subjects. Chapter two deals, among other things, with oils (2.44–58), rubbing the feet, hands, and body with these oils (2.59–69), the qualities of water of diverse origin (2.70–121), the use of water for drinking and bathing purposes (2.122–132), articles of clothing (2.133–136), and fragrant substances employed for anointing the body (2.137–149). Chapter three, called mādhyāhna (583 verses), is about the properties of grain and pulse (3.2–42), vegetables (3.43–214), fish (3. 215–267), meat (3.268–316), alcoholic and other fermented beverages (3.317–331), honey (3.332–351), milk and dairy products (3.352–410), the sugarcane and its products (3.411–430), spices, condiments, salt and caustics (3.431–465), prepared dishes (3.466–535), rules concerning the taking of food (3.536–563), and the chewing of betel (3.564–580). Chapter four, called aparāhna (29 verses), is concerned with the types of country (4.6–9), as well as with rasa and vipāka (4.10–29). Chapter five, called niśābhava (31 verses), is about subjects pertaining to the generation of offspring. Chapter six, called auṣadhāśraya (151 verses), deals with the properties of a series of drugs (6.1–111) and the regimen during the seasons.[310]

Sources are not referred to by the author.[311]

Rājavallabha is quoted in Baladeva Prasāda Miśra's *Āyurvedacintāmaṇi*, the commentary on Govindasena's *Paribhāṣāpradīpa*, and the *Śāligrāmanighaṇṭubhūṣaṇa* of the *Bṛhannighaṇṭuratnākara*. A commentary (vivṛti) on the *Rājavallabhanighaṇṭu* was written by Gaṅgādhara.[312]

Special features
The nighaṇṭu sections in the proper sense do not enumerate synonyms. Noteworthy plants mentioned are: boravavrīhi (3.16), celāna (3.104),[313] cīruka (3.171), halīnaka (6.42),[314] jayapāla (6.91), jhiṅgāka (3.99),[315] kacvī (3.115),[316] kaṇṭā (3.172–174),[317] kāsundī (3.436),[318] khaṇḍakarṇa (3.121),[319] mahārāṣṭrī (3.72),[320] mahārda (3.166),[321] sairipa (6.41),[322] śakrāśana (6.48),[323] śāliñca (3.58),[324] śuṣaṇī (3.72), and uḍikā (3.22–

24).[325]

Names of fishes mentioned are: āḍimatsya (3.231), bhallakī (3.233), bhākuṭa (3.229), caladaṅga (2.257), campakunda (3.252), candraka (3.251), ciḍaṅga (3.247), cilacima (3.263), citraphala (3.234), daṇḍika (3.253), elaṅga (3.261), gaḍaka (3.258), gaḍiṣa (3.250), gargara (3.235), gavāṭī (3.264), iliśa (3.238), kavapī (3.248), khaliśa (3.256), kṣudraśapharī (3.265), kuliśa (3.237), madgura (3.241), malaṅgī (3.255), nandāvarta (3.236), parvatī (2.259), pāṭhīna (3.230), phali (3.246), proṣṭhī (3.240), rohita (3.228), śakalī (3.249), śakula (3.243), śilinda (3.231), śṛṅgī (3.242), trikaṇṭa (3.254), vāca (3.260), vallīgaḍa (3.262), vāpuṣa (3.239), varmi (3.245), and varmuṣa (3.244).

The author
The text known as *Rājavallabhanighaṇṭu* is usually said[326] to be the version revised by Nārāyaṇadāsa Kavirāja.[327] Almost nothing is known about the original author, who is sometimes credited with two more medical works, the *Rājavallabhaparyāyamālā* and the *Ratnamālā*.[328] According to some authorities[329] he must have been an inhabitant of Bengal since the fishes described are well known there; according to others[330] he may as well have belonged to the eastern part of Uttar Pradeś.

Date
Nārāyaṇadāsa Kavirāja is assigned to the eighteenth century.[331] The date of composition of the original of the *Rājavallabhanighaṇṭu*, prior to its revision, is unknown.

Raṅgajyotirvid

Raṅgajyotirvid is the author of a monograph on the treatment of haemorrhoids, called *Vicārasudhākara* or *Arśoghnasudhākara*, written for the future Peshwā,[332] Raghunātha Rāo (1773/1774), in 1765. The surgical treatment of haemorrhoids current among the Yavana or English physicians is referred to in this work.

The author mentions a number of contemporary physicians by name: Bābā Bhiṣagvarya, Bāgāji Vaidya, Balvantrāya Vaidya, and Jaya Śaṃkara. Sources of the work are: *Ātreyasaṃhitā, Atrisaṃhitā, Bhāvaprakāśa,* Caraka, *Cikitsāmṛtasāgara, Dhanvantariprakāśa,*[333] *Sārasaṃgraha, Sārasamuccaya,* Suśruta, Vāgbhaṭa, *Vaidyāmṛta, Vṛndasaṃgraha, Yogataraṅgiṇī,* etc.

The author, son of Sūryavidhijña, was a resident of Junnār[334] in the Poona district; he died after 1780.[335]

Śaṃkara

Śaṃkara, whose full name was Plāntōḷ Śaṅkaran Mūs, wrote the *Nidānapradīpa*, described as a work on the diagnosis of various ailments found scattered in Vāgbhaṭa's *Aṣṭāṅgahṛdayasaṃhitā*.[336] Another work by the same author is the *Lalitā* commentary on the *Aṣṭāṅgahṛdayasaṃhitā*.[337]

Ṣaṇḍhacikitsā[338]

Tulajā I

Tulajā I,[339] alias Tukkojī I (1729–1735), one of the Maratha kings of Tanjore, son of Ekojī I and Dīpāmbikā, father of Ekojī II, is credited with three medical works: (1) *Āyurveda*,[340] (2) *Dhanvantarisāranidhi*,[341] and (3) *Dhanvantarivilāsa*.[342]

Vaidyacintāmaṇi

Vaidyacintāmaṇi, son of Vaidyaratna and pupil of Narasiṃhakavirāja, is often regarded as the author of a very bulky medical work called *Prayogāmṛta*.

The author was a native of Nirol, a village belonging to the Śrīkhaṇḍa community. He completed his treatise at the end of the eighteenth century.[343]

The work[344] begins with the preparation of metals, etc., for medical use (rasādijāraṇavidhi), diagnostic procedures (the examination of the pulse, tongue, and urine), and taking the history of a patient (vaidyapraśnavidhi). The major part is concerned with therapy.

The order of the diseases is mostly in conformity with the *Mādhavanidāna*, but shows a number of additions and changes. Chapters on kṛmi and uraḥstambha occur between those on vātaroga and āmavāta. The chapter on hṛdroga is followed by one on urograha. A chapter on phuliṅgaroga[345] is added between those on upadaṃśa and śūkadoṣa; snāyuka is dealt with between visphoṭa and masūrikā. The chapters on women's diseases are in the following order: pradara, strītānukaroga, somaroga, vandhyāroga, kākavandhyā, mṛtavatsā, yonivyāpad, garbhiṇīsevyāsevyavidhi, and garbhopakramaṇādividhi. The treatise ends with chapters on vājīkaraṇa and rasāyana.

Sources quoted are: Kaṇṭharava, *Mṛdānītantra*, Rāmarāja,[346] *Rasayāmala*, *Ratnākara*, Śrīkaṇṭha,[347] Sudāntasena, *Yogamuktāvalī*, *Yogaratna*, and *Yogaratnasamuccaya*.

The *Prayogāmṛta* is quoted in the *Śāligrāmaṇighaṇṭubhūṣaṇa* of the *Bṛhannighaṇṭunatnākara*.

Vaidyarāja

Vaidyarāja, son of Viśārada (and nephew of Ratnamaṇi), son of Vaidyacintāmaṇi, son of Vaidyavācaspati, son of Yadunātha, was the author of (1) *Sukhabodha*, (2) *Rasarasārṇava*, (3) *Rasapradīpa*, and (4) *Vaidyamahodadhi*.

The *Sukhabodha*[348] is a comprehensive work on therapeutics, written in a clear and easy style.

Apart from well-known authorities like Caraka, Suśruta and Vāgbhaṭa, it mentions the following sources: *Madanavinoda*, *Paribhāṣā*, *Rasadīpikā*, *Rasakalikā*, *Rasamañjarī*, *Rasaprayoga*, *Rasaratnākara*, *Rasendracintāmaṇi*, *Rasendrakalpadruma*, Śāraṅgadhara, *Sārasaṃgraha*, and Vaṅgasenaka. It quotes, besides these, from *Agnipurāṇa*, *Garuḍapurāṇa*, *Gopā(la)saṃhitā*,[349] *Kumāratantra* (by Rāvaṇa), *Sāralatikā*,

Vāsudeva, and Viṣṇu.[350]

The *Sukhabodha* was compiled in A.D. 1567 or 1702,[351] but, as the *Rasendrakalpadruma*, quoted in it, dates from the middle or second half of the seventeenth century,[352] the date of composition cannot be but A.D. 1702.

The *Rasarasārṇava*[353] is a short treatise in two chapters (upadeśa). The first deals with harītakīguṇāḥ and prakṛtyādi, the second with jvaralakṣaṇa, nāḍīparīkṣā, mūtraparīkṣā, tailaparīkṣā, netraparīkṣā, sādhyalakṣaṇa, asādhyalakṣaṇa, and nakṣatradoṣa.[354]

No particulars are known about the *Rasapradīpa*[355] and the *Vaidyamahodadhi*.[356]

Vedakavi

Vedakavi was the author of an allegorical drama of the nāṭaka[357] type on medicine, the *Jīvānanda*, or *Jīvānandana*.[358]

Special features

Interesting from a medical point of view are: the number of diseases assigned to a particular group; references to the doṣas, dhātus, layers of the skin, etc.; references to therapy; references to iatrochemistry and particular rasauṣadhas.

The number of diseases mentioned repeatedly disagrees with the classical āyurvedic texts, but is in many cases in conformity with the *Śārṅgadharasaṃhitā*. In agreement with the classical treatises are the thirteen saṃnipāta fevers (58). Rudra's wrath as the origin of fever is described (272). The names of fever in non-human living beings and in inanimate substances,[359] as given in the *Jīvānanda* (273–274), are: pākala in elephants, abhitāpa in horses, alarka in dogs, indramada in fish, jyotis in herbs, cūrṇapa[360] in grain, nīlikā in water, and ūsa in earth. Atisāra is of seven (61),[361] grahaṇī of five types (273).[362] Haemorrhoids (arśāṃsi) are of six varieties (61 and 277).[363] Sluggishness of the digestive fire (agnimāndya) is said to be the cause of all diseases (278).[364] Bhasmaka, a disorder of the digestive fire leading to bulimia, has a prominent place in the *Jīvānanda* as an illness from which king Jīva suffers.[365] Yakṣman[366] is said to be caused by great sins (mahāpātaka; 127).[367] The number of varieties is five in śvāsa (54),[368] six in mūrchā (281),[369] six in unmāda (61 and 282),[370] four in āmavāta (281),[371] eight in śūla (102 and 277),[372] eight in gulma (61 and 102),[373] and five in hṛdroga (102 and 282).[374] Eight types of mūtrakṛcchra are distinguished (277),[375] thirteen of mūtrāghāta (277),[376] four (277) or twenty (61) of aśmarī,[377] twenty of prameha (61 and 277),[378] fifteen of vraṇa (61 and 102),[379] eight of bhagandara (277),[380] and eighteen of kuṣṭha (61).[381] The diseases of the oral cavity and throat (mukharoga) are said to be seventy-four (102 and 279),[382] those of the nose eighteen (102),[383] and those of the eyes ninety-six (102) or ninety-four (279) in number.[384] The number of diseases of the head is excessively high, namely one hundred (102).[385] Five diseases of the chest (vakṣoja) are mentioned (102), which are unknown in āyurvedic treatises. The eighty diseases by vāta, forty by pitta, and twenty by kapha are referred to (278). Kapha (81) or kapha and pitta together (266) are said to be crippled (paṅgu), whereas vāta is considered to be the only active doṣa.[386] The

relationships between the tastes and the doṣas are referred to (81), as well as those between the tastes and the seven dhātus (265).

The seven layers of the skin, the diseases located in each of the layers, and the treatment of these diseases are mentioned (248–255).[387] Dinacaryā and ṛtucaryā are dealt with in act four. Several surgical instruments are described (205–207). Much importance is attached to iatrochemistry. Mercury and sulphur are important remedies in the *Jīvānanda*, as well as several rasauṣadhas. Mercury is called Śiva's seed and sulphur Śarvāṇī's menstrual blood (35). Some of the processes to which mercury is subjected in Indian alchemy are mentioned (116). Some rasauṣadhas referred to are, for example, ānandabhairava (291),[388] cintāmaṇi (291), jvarāṅkuśa (291),[389] mahātāleśvara (253),[390] pūrṇacandrodaya (294), and rājamṛgāṅka (291).[391]

The author and his date

The author of the *Jīvānanda* was a poet, called Vedakavi, who also composed another allegorical play, called *Vidyāpariṇaya*.[392] The *Jīvānanda* is modelled upon Kṛṣṇamiśra's *Prabodhacandrodaya* and similar plays. It is ascribed to the author's patron, Ānandarāyamakhin, the son of Nṛsiṃharāyamakhin and grandson of Gaṅgādharamakhin. Nṛsiṃharāya, of Bhāradvājagotra, was a minister at the court of Ekojī of Tanjore (1676–1683). Tryambakarāja, his younger brother, was a minister of Ekojī, Śāhajī (1684–1710) and Serfojī (1711–1728). Ānandarāyamakhin,[393] who was a minister at the courts of Śāhajī, Serfojī and Tukojī, also called Tulajā (1729–1735),[394] died during the last year of Tukojī's reign.

The *Jīvānanda* was written during the reign of Śāhajī and staged for the first time during a festival in honour of Śiva.[395]

Vidvadguṇavilāsa

Vidvadguṇavilāsa, pupil of Siddhivardhanopādhyāya Gaṇi of the Kharataragaccha, wrote his *Guṇayogaprakāśa* in 1717.[396]

Viśrāma

Viśrāma, pupil of Pītāmbara, was the author of the *Vyādhinigraha*.[397]

Contents

The *Vyādhinigraha* consists mainly of a collection of prescriptions against a large number of diseases, preceded by a maṅgala, addressed to the author's guru and iṣṭadeva, and two verses on diagnosis and treatment in general.

The diseases dealt with are: jvara (4–38), atisāra (39–52), pravāhikā (53–55), grahaṇī (56–62), arśas (also called harṣa) (63–68), kṛmi (69–70), śopha (71–75), mūtrakṛcchra (76–85), mūtrarodha[398] (86–89), prameha (90–94), aśmarī (95–101), vātarakta (102–104), ajīrṇa and visūcikā (105–109), mandāgni (110–114), gulma (115–121), pāṇḍuroga (122–124), kāmalā (125–130), hāridraka (131–133), kuṣṭha

(134–141), sidhma (142–143), pāmā (144–145), dadru (146–147), pādasphuṭana (148), baddhakoṣṭha[399] (149–152), śvayathūdara (153–159), plīhan (160–162), jalodara (163–165), raktapitta (166–171), pradara (172–177), garbhaparisrava (178), garbhapāta (179–180), naṣṭapuṣpa[400] (181–182), raktasrāva in pregnant women (183), yoniśūla (184–187),[401] stanapīḍā[402] (188–189), yoniśūla (190–191), sūtikāroga (192–196), kṣaya (197–201), kāsa (202–214), śvāsa (215–222), hikkā (223–227), chardi (228–231), śūla (232–235), arocaka (236–237), tṛṣṇā (238–243), anidrā[403] (244–245), mūrchā and tandrā (246–248), dāha (249–251), apasmāra[404] (252–259), unmāda[405] (260–261), ardita (262–264), dhanurvāta (265–266), śītāṅgaroga (268–270), āmavāta (271–274), rāndhaṇa (275–278), sandhivāta (279–283), vātaroga (284–304), amlapitta (305–307), visarpa (308–310), vraṇa (311–313), nāḍīvraṇa (314–315), visphoṭa (316), dagdhapīḍā[406] (317–318), karṇamūlagranthi[407] (319–320), karṇaka[408] (321–322), śastraghāta[409] (323–326), saptapuṭa, hoḍikā and copaṭikā (327–337), cipikā or cīpī and sadyovraṇa (338–340), nāsura (341), snāyuroga (342), ślīpada and valmīka (343–345), arbuda and rasolikā (346–349), gaṇḍamālā (350–352), lūtā (353–356), bhagandara (357–362), vidradhi (363–365), upadaṃśa (366–375), śītalā (376), ūrustambha (377–379), vicarcikā (380–382), ānāha (383–384), madhura(jvara) (385–387), sthaulya (388–389), āmbavāyu (390), loss of libido (391–393),[410] udāvarta (394–395), vyaṅga (396–397), khillaka (398), śiroroga (399–410), bhrūśaṅkhadoṣa (411), ardhaśīrṣa[411] (412), nāsāroga (413–418), indralupta and other types of śiroroga (419–422), karṇaroga (423–426), oṣṭhadoṣa (427), dantaroga (428–429), jihvāroga (430–431), ghaṇṭikāroga (432–435), galaroga (436–439), mukharoga (440), svararoga (441–442), mukharoga (443–445), netraroga (446–456), and bālaroga (457–463).

The last part of the work is devoted to various subjects of general medical interest, some of which are: prakṛti (470–471), the eight branches of āyurveda (474–477), aṣṭaparīkṣā (478),[412] pañcakarman (479–481ab),[413] embryology (487–491), and anatomy (492–510).

Remarkable names of diseases are: āmbavāyu, cīpī, cipikā, copaṭikā, ghaṇṭikāroga,[414] hoḍikā,[415] khillaka,[416] madhura(jvara),[417] nāsura,[418] rāndhaṇa,[419] rasolikā,[420] saptapuṭa,[421] and śītāṅgaroga.[422]

The term ḍambhana is repeatedly used (329, 331, 339) for agnikarman (cauterization).

Noteworthy items of the materia medica are bodāra (336), copacīnī (295), māstakī (368), and pārada (340).

Caraka is referred to once (177).

The author

Viśrāma mentions his name and that of his guru, Pītāmbara, at the end of the work. He also informs his readers that he belonged to the Āgamagaccha and lived in a town called Arjunapura in Kūrmadeśa.[423]

The author remarks that his treatise is based on various other works and the teachings of his guru.

The *Anupānamañjarī* is sometimes ascribed to Viśrāma.[424]

Date
The *Vyādhinigraha* was completed in A.D. 1756/57.[425]

Yaśavanta

Yaśavanta wrote his *Vaidyacintāmaṇi* in 1792/93.[426]

Yogaratnākara

The anonymous *Yogaratnākara*[427] is an elaborate and comprehensive compilation in verse.[428]

Contents[429]
Section one (pūrvakhaṇḍa): generalities (1–3), omina (3–4), the eightfold examination (aṣṭasthānanirīkṣaṇa) of a patient (4–13),[430] kālajñāna, on signs foreboding death (13–14), types of country (14), the doṣas (14–16), āma (16), the constitutions (17), weights and measures (18–21),[431] a nighaṇṭu (21–43), the span of life allotted to a patient (43–46), dinacaryā, rātricaryā, and ṛtucaryā (46–80), types of water (80–82), milk and other dairy produce (82–91), oils (91–93), honey (93–94), the sugarcane and its products (94–95), urines (96), groups of condiments and drugs (97–100), pharmaceutical preparations (101–109),[432] the purification (śodhana) and killing (māraṇa) of the eight dhātus (109–120), the upadhātus, ratnas, viṣas and upaviṣas, the processes to which mercury has to be subjected, and various related subjects (120–146), substitutes for medicinal substances which are obtainable with difficulty (147–150), emetic and purgative procedures (150–154), nasya (154), karṇapūraṇa (154), bloodletting (154–155), some definitions (156–157), and the nidāna and treatment of diseases (157–910). Section two (uttarakhaṇḍa) deals with vājīkaraṇa (910–927), rasāyana (927–931), and anupānas (931–932).

A large number of sources are quoted by name:[433] *Āśvinasaṃhitā* (522),[434] *Bauddhasarvasva* (366), Bhaṭṭārakahariścandra (515),[435] *Bhāvaprakāśa* (185, 186, 724, 741, 753, 789, 812, 853), Bheḍa (199), Bhoja (617, 618, 619, 620, 635, 731, 744, 745, 854), *Cakradatta* (170, 403, 653), Caraka (150, 515, 517, 563, 606, 730, 764), Carpaṭa (9), *Cikitsādīpa* (365),[436] *Cikitsākalikā* (228, 319, 780), *Cikitsāsāra* (364, 365, 371, 376, 382, 386, 387, 389, 396, 398, 402, 403, 420, 428, 429, 715), *Dhanvantarīyamata* (282),[437] *Gadanigraha* (248, 294, 327, 383, 446, 526, 540), Gorakṣanātha (377),[438] Hārīta (493, 635), Hemādri (157),[439] Jaijjaṭa (606),[440] Kadamba (376, 475),[441] Kāśyapa (529),[442] *Kāśyapagrantha* (297),[443] *Kāśyapasaṃhitā* (897), Kṣīrapāṇi (601), *Laghuyoga* (390, 410),[444] *Lakṣmaṇotsava* (701), *Madanapāla* (382),[445] Mādhava (869),[446] Mālatīmukura (105),[447] Manthānabhairava (280), *Nārāyaṇīya* (364, 365),[448] Nimi (800, 801), *Rājamārtaṇḍa* (302, 397, 555), *Rājanighaṇṭu* (99), *Rasamañjarī* (415), *Rasarājalakṣmī* (206, 249), *Rasaratnapradīpa* (357, 364, 366, 391, 397, 404, 415, 422, 426, 431, 480, 544), *Rasaratnasamuccaya* (483), *Rasārṇava* (275, 337), *Rasasindhu* (282), *Rasendracintāmaṇi* (279), *Ratnapradīpa* (293),[449] *Rudratantra* (10),[450] *Saṃgraha* (543),[451] *Saṃhitā* (598, 789),[452] *Śaṃkarākhya* (371),[453] *Sārasaṃgraha* (338, 382, 386, 389, 390, 395, 399, 453, 475, 478, 507, 705), Śārṅgadhara (107, 200, 201, 320, 353, 359, 380, 381, 386, 388, 389, 397, 413, 420, 451, 466, 467, 468, 477, 478, 487, 490, 496, 521, 548), Suśruta (many times), Vāgbhaṭa (150, 169, 229, 576), *Vaidyajīvana* (354, 355, 365, 370, 398, 403, 414, 487), *Vaidyālaṃkāra* (106), *Vaidyavilāsa* (330, 365, 370, 487),[454] Vaṅgasena (347, 817, 863), Videha (168, 797, 798, 802), *Vīrasiṃhāvaloka* (327, 420, 453), Viśvāmitra (875), Viṭṭhala (429),[455] *Vopadevakṛtaśataka* (489),[456] *Vopadevaśata* (373, 380),[457] *Vṛddhahārīta* (6),[458] *Vṛddhavāgbhaṭa* (168, 170, 181), Vṛnda (243, 245, 293, 306, 355, 356, 364, 365, 371, 377, 395, 396, 402, 403, 409, 410, 420, 421, 425, 428, 430, 444, 452, 476, 477, 478, 483, 486, 488, 497, 511, 518, 522, 528, 532, 533, 534, 538, 540, 541, 555, 566, 579, 595, 610, 616, 701, 768, 842), *Yāmala* (12),[459] *Yoga* (371, 389), *Yogaratnasamuccaya* (113, 199), *Yogaratnāvali* (106, 358, 388, 391, 451, 489, 568, 569), *Yogasāra* (54, 335, 338, 381, 387, 388, 390, 391, 467, 525, 541), *Yogaśata* (371, 376, 388, 397, 425, 446, 474), *Yogaśataka* (365),[460] *Yogataraṅgiṇī* (293, 306, 331, 334, 335, 357, 365, 372, 383, 386, 387, 388, 389, 396, 397, 403, 420, 421, 426, 428, 430, 595, 740), and *Yogatattva* (332).

Edition f gives more references to sources than g. Sources added in f are: *Anaṅgaraṅga* (1474, = g, 923), *Bhāvaprakāśa* (1206, = g, 752; 1209, = g, 753–754;[461] 1214, = g, 756; 1378, = g, 863; 1380, = g, 865; 1387, = g, 869; 1411, = g, 884; 1440, = g, 903; 1443, = g, 905; 1456, = g, 913;[462] 1485, = g, 930),[463] *Cakradatta* (1352, = g, 848), Candrasena (1047, = g, 654),[464] Caraka (458, = g, 289), *Cikitsākalikā* (1484, = g, 929), *Gadanigraha* (969, = g, 606),[465] Hariścandra (853, = g, 535),[466] Kadamba (898, = g, 563–564), Kṣīrapāṇi (960, = g, 600), Mādhava (1360, = g, 853), *Rājamārtaṇḍa* (1001, = g, 627; 1003, = g, 628; 1408, = g, 882; 1473, = g, 923; 1483, = g, 929), *Rasaratnākara* (213, = g, 138), *Rasaratnapradīpa* (1343, = g, 842),[467] *Sārasaṃgraha* (874, = g, 549),[468] Śārṅgadhara (833, = g, 523),[469] Śivāgama (202, = g, 131), Suśruta (1432, = g, 897), Vāgbhaṭa (897, = g, 563), *Vaidyajīvana* (278, = g, 177), *Vaidyavilāsa* (1212, = g, 756; 1403, = g, 879; 1421, = g, 891), Vaṅgasena (1309, = g, 820–821), Videha (1268, = g, 791), *Vīrasiṃhāvaloka* (463, = g, 292; 593, = g, 372),[470] *Vopadevaśata* (702, = g, 446),[471] Vṛnda (278, = g, 177; 755, = g, 475;[472] 755, = g, 475;[473] 859, = g, 539; 1248, = g, 779), *Yoga* (706, = g, 448; 755, = g, 475),[474] *Yogaratnāvali* (1249, = g, 779),[475] *Yogasāra* (711, = g, 451;[476] 1343, = g, 843), and *Yogataraṅgiṇī* (709, = g, 450; 713, = g, 452–453;[477] 1207, = g, 753).

Sources, absent from the above lists, but mentioned in the *Yogaratnākara* according to other scholars are: *Ārogyadarpaṇa*, *Aśvinīkumārasaṃhitā*,[478] *Līlāvatī*,[479] *Matimukura*,[480] *Navaratnamālā*, *Nirṇayasindhu*,[481] *Śaṃkaramata*,[482] *Yogacintāmaṇi*, and *Yogapradīpa*,[483] *Rasasārasaṃgraha* and *Rasendrasaṃhitā*,[484] Lolimbarāja,[485] and *Nirṇayasindhu*.[486] Atrideva[487] claims that the nighaṇṭu of the *Yogaratnākara* quotes Cakrapāṇidatta's *Dravyaguṇa*.

The verses of the *Yogaratnākara* on nidāna are usually those of Mādhava's *Rugviniścaya*, with the addition of other ones from sources not mentioned by name in most cases.

Authors and works quoting from or referring to the *Yogaratnākara* are: Āśubodha and Nityabodha Senagupta's commentary on the *Rasaratnasamuccaya*, the *Āyurvedīya*

Khanijavijñāna, the *Bheṣajasaṃhitā*, Devasiṃha Viṭṭhal's *Bṛhadāsavāriṣṭasaṃgraha*, Dharmadatta's *Tridoṣasaṃgraha*, Govindadāsa's *Bhaiṣajyaratnāvalī*, Gulrājśarmamiśra's *Siddhaprayogalatikā* and *Viśikhānupraveśavijñāna*, Haridattaśāstrin's commentary on the *Rasataraṅgiṇī*, Hariprapanna's *Rasayogasāgara*, Hariśaraṇānanda's *Kūpīpakvarasanirmāṇavijñāna*, Karandīkar's *Nidānadīpikā*, Khare's commentary on the *Rasaratnasamuccaya*, Lakṣmīrāma's commentary on the *Siddhabhesajamaṇimālā*, Nirañjanaprasāda Gupta's *Pāradasaṃhitā*, Rājeśvaradatta Miśra's *Svasthavṛttasamuccaya*, the *Rasadhātuprakāśa*, the *Rasatattvavivecana*, the *Rasoddhāratantra*, Priyavrat Śarmā's auto-commentary on the *Āyurvedadarśana*, Satyadeva Vāsiṣṭha's commentary on Rāvaṇa's *Nāḍīparīkṣā*, Somadevaśarman's commentary on the *Āyurvedaprakāśa*, and the *Rasāmṛta* and *Siddhayogasaṃgraha* of Vaidya Yādavajī Trikamajī Ācārya. It was also used by the unknown author of the interpolated portions of Niścalakara's *Ratnaprabhā*.[488] The *Yogaratnākara* is one of the sources of Āryadāsa Kumārasiṃha's *Kvāthamaṇimālā* and Viśvanātha Dvivedī's *Rasendrasambhava*.

Special features[489]

The nighaṇṭu part of the *Yogaratnākara* enumerates properties; synonyms are only occasionally given.[490] Noteworthy substances described are: āgastyaśimba (24), bheṇḍī (22),[491] bṛhanmarīca (24),[492] gaurabākucī (24),[493] kṣupaja marica (24), mahāpīlu (27),[494] miṣṭatumbī (22),[495] pañcabhṛṅga (98), rāmāhvayaphala (27),[496] śākūṭa (24),[497] śītāphala (27),[498] śyāmalaśākūṭa (25),[499] and tamākhu (30).[500]

The verses on rasaśāstra mention two opinions on the composition of the group of the metals (dhātu); the first list consists of seven metals: gold, silver, brass (āra, = pittala), copper, lead, tin, and tīkṣṇaka (a kind of iron), to which by some mercury is added; the second list enumerates gold, silver, copper, tin, lead, brass (rītikā, = pittala), bell-metal (ghoṣa), and iron (109). Seven upadhātus are recognized: abhraka, mākṣika, tāla, śilā, nīlāñjana, tutthaka, and rasaka. Nine major poisonous substances are mentioned: kālakūṭa, vatsanābha, śṛṅgaka, pradīpana, hālāhala, brahmaputra, hāridra, saktuka, and saurāṣṭrika (142); the seven minor poisons are: arkakṣīra, snuhīkṣīra, lāṅgalī, karavīraka, guñjā, ahiphena, and dhattūra (143).

The *Yogaratnākara* contains a long list of substitutes for drugs which are diffficult to procure (147–150).

The order of the diseases agrees with the *Mādhavanidāna*. Diseases added are: one series of thirteen saṃnipāta fevers, namely sandhika, antaka, rugdāha, cittavibhrama, śītāṅga, tandrika, kaṇṭhakubja, karṇaka, bhugnanetra, raktaṣṭhīvin, pralāpaka, jihvaka, and abhinyāsa (160–162);[501] a fever called mantharajvara (214–215);[502] jvarātisāra (233–239); pādakaṇṭaka (439); ūrdhvavāta (440); śītavāta, sparśavāta, and raktavāta[503] (441); urograha (535); bahumūtrameha (polyuria; 576–577); vardhma (611); agnidagdhavraṇa (654–656); candrakavraṇa (672);[504] pūtiprameha (672);[505] snāyuka (716–718); śītalā (724–727);[506] somaroga and mūtrātisāra (843–845). Phiraṅgaroga is not described separately, but is included in the group of diseases called upadaṃśa.[507]

The formula of khaṇḍakūṣmāṇḍaka (308) does not agree at all with that of the *Bhāvaprakāśa*.[508] The chapter on galagaṇḍa, etc., contains a verse, ascribed to Bhoja, on types of granthi which are incurable or difficult to cure (619) that is already found

in Gayadāsa's commentary on the *Suśrutasaṃhitā*.[509] The recipe of puṣyānugacūrṇa (841) differs slightly from that found in the *Carakasaṃhitā*.[510]

The description of the yoniroga called udāvartā (845) differs from that in the *Carakasaṃhitā*;[511] the aṇḍinī type (846) corresponds to the phalinī type of the *Suśrutasaṃhitā*.[512] The chapter on yoniroga mentions that a daughter is born from the left nāḍī of the female reproductive system, a son from the right nāḍī (848). The formula of phalaghṛta (848) differs very much from that present in the *Aṣṭāṅgahṛdaya* and agrees with that found in the *Bhāvaprakāśa*.[513] The chapter on yoniroga also contains prescriptions against infertility in women (847–849), as well as contraceptive and abortifacient formulae (849–850),[514] recipes which tighten the vagina (851),[515] recipes effective against yonidāha (a burning sensation in the vagina) (851),[516] etc.

The chapter on strīroga describes that parturition may be impossible due to contraction (saṃkoca) of the birth channel (garbha), caused by vāta (861).[517] The same chapter leaves the treatment of mūḍhagarbha (malpositions), even the surgical interventions, to experienced midwives (862–863).[518] Some verses on the treatment of mūḍhagarbha have been borrowed from Vaṅgasena (863–864).[519] The *Yogaratnākara* advises pressing of the vaginal canal just after delivery, in order to prevent the entry of vāta (864). The employment of poultices (upanāha) is recommended in diseases of the breasts (stanaroga) (869), although this type of treatment is said to be contra-indicated in most āyurvedic treatises.[520] The chapter on kṣīradoṣa and its treatment[521] has a long list of articles of diet, patterns of behaviour, etc., which should be recommended to a pregnant woman, followed by a series of unwholesome things (871).[522] Prescriptions against the evil effects of overuse of mercurial compounds are also found in the treatise (925–927).

The verses on therapy contain both āyurvedic recipes and rasauṣadhas.[523]

Some new formulae may be found in the *Yogaratnākara*: gokṣurādiguṭī (568),[524] candraprabhāguṭī (568),[525] bālaharītakīyoga (671),[526] mahākṣāraguṭī (672),[527] pūgādiyoga (672),[528] and kadalīkandaghṛta (844).[529]

Verses on pathyāpathya are found at the end of the sections on treatment.

Many formulae of pākas are present in the *Yogaratnākara*.[530]

Noteworthy medicinal plants and substances prescribed are: bhīmasenakarpūra,[531] bhūparṇikā (461),[532] bhūśarkarā (461),[533] bhūtāṅkuśa (461),[534] copacīnī (671),[535] gaṅgāvatī (461), gṛdhramahīruha (460),[536] heru (460),[537] kabāba (691), karahāṭikā (135),[538] kāruñjī (461),[539] kevaṇī (460),[540] kuñjarikā (460),[541] kusari (460),[542] madhupuṣpikā (461),[543] mṛgakhurī (461),[544] murdāḍaka (672),[545] nepatī (461),[546] paṅgula (460),[547] phalā (461),[548] picchalikā (460),[549] poṭa (466),[550] rasakarpūra,[551] rāyapurī śarkarā,[552] sākuraṇḍa (461),[553] sauraka (672),[554] śivetara (460),[555] śvetapuṣpa (205),[556] vaiṣṇavikā (461),[557] vāsanī (460),[558] and virojā (672).[559]

The author

The identity of the author remains unknown. According to some he must have been a resident of southern India since most of the MSS are found there and the *Yogaratnākara* is still much in use in Mahārāṣṭra. The author's name was Mayūrapāda Bhikṣu according to some Indian scholars.[560]

Date

The quotations from the *Vaidyavilāsa* by Raghunātha Paṇḍita, composed in A.D. 1697, and the existence of a MS, dating from A.D. 1746,[561] prove that the *Yogaratnākara* was compiled during the first half of the eighteenth century. The earliest author to establish this date was S.L. Katre.[562] P.K. Gode[563] assigned the work to the period 1650–1725 on account of the quotation of Kamalākara's *Nirṇayasindhu*, composed in 1612,[564] the verses on tobacco,[565] and the MS dating from 1746. P.V. Sharma regards the work as having been written towards the end of the seventeenth century because it quotes Lolimbarāja and Trimalla's *Yogataraṅgiṇī*.[566] The most appropriate date for its composition is A.D. 1676 according to N. Saxena.[567] The *Yogaratnākara* is regarded as dating from the eighteenth century by Atrideva[568] and S. Upadhyaya.[569]

The *Yogaratnākara* should not be confused with another medical work of the same title, written in caupāī verse in old Gujarātī by a Jain author, called *Nayanaśekhara*, pupil of Jñānaśekhara, in 1633 or 1680.[570]

Chapter 4
Nineteenth-century authors and works

ABHIDHĀNACANDRIKĀ by Bhīmasena. Other works by the same author are a Sūpaśāstra and the Vaidyabhūṣaṇā.

The Abhidhānacandrikā[1] is a glossary of medical terms; its preface is to a great extent taken from the Dhanvantarīyanighaṇṭu.

The Sūpaśāstra is a treatise on cooking.[2]

The Vaidyabhūṣaṇā appears to be a comprehensive medical treatise.[3]

The Vaidyabodhasaṃgraha of a Bhīmasena may or may not be by a different author.[4]

Bhīmasena wrote his works in the second half of the nineteenth century. He was highly respected by Kṛṣṇa Rāja Wodeyar III, king of Mysore, who was placed on the throne by the British in A.D. 1799 and who died in 1868. Bhīma was also patronized by Kṛṣṇa Rāja's son, Cāmarāja Wodeyar.[5]

ABHINAVANIGHAṆṬU, compiled by Dattarām Nārāyaṇadatta Caube, son of Dattarām.[6] The subject matter is arranged in twenty-four chapters (varga) and an appendix (pariśiṣṭa). Chapter one deals with pharmacology in general; chapters two to twenty-four describe medicinal substances, their names and their properties, mainly along the lines of the Bhāvaprakāśanighaṇṭu; the appendix, called Yūnānī Dravyaguṇasaṃgraha, is devoted to drugs borrowed from Islamic medicine.[7]

The author was a resident of Mathurā.[8]

ĀGNEYĀYURVEDAVYĀKHYĀ by Gaṅgādhara.[9]

AJĪRṆAMAÑJARĪ by Dattarāma,[10] a short monograph on disorders of digestion (ajīrṇa).

The benedictory verses are addressed to Dhanvantari and Kṛṣṇa. The treatise begins with the statement that ajīrṇa is the main cause of all diseases; it proceeds with its nidāna (4–5),[11] its definition (6) and a description of its six varieties (7–13).[12] One verse (14) is devoted to the general treatment of the four chief varieties, two verses (15–16) are about the number of days required for ajīrṇa, caused by some specified articles of diet, to disappear when dietary restrictions are observed.[13] Thirty-two verses (17–48) deal with ajīrṇa brought about by a long series of particular substances and its treatment by prescribing substances considered to be counteractive. Thirteen verses (49–61) are about ways of treating various discomforts; the preparation of śukta and veśavāra is also described (58–60) in this section of the work. The treatise ends with the statement

(62) that the author, Dattarāma, compiled the Ajīrṇamañjarī from the words of various sages.[14] A pariśiṣṭa of nine verses contains some compound formulae. A part of the laśunakalpa from the Kāśyapasaṃhitā is appended at the end.

The only authority quoted by name is Kāśyapa (49).

A comparison with Kāśīnātha's Ajīrṇamañjarī learns that more than half of Dattarāma's verses were borrowed from it.

The description of ajīrṇa caused by particular substances and its treatment by means of specified other substances is not found in the classical saṃhitās and appears rather late in āyurvedic literature.[15]

A noteworthy article of diet mentioned in the Ajīrṇamañjarī is cīnāruka (46).[16]

No particulars are known about the author.

The treatise was completed in 1882/83.[17]

ANUPĀNATARAṄGIṆĪ[18] by Raghunāthaprasāda.

The work consists of 522 verses, arranged in seven chapters (vīci), and is composed in the form of a dialogue between a husband and his beloved wife. The latter is the receiver of teachings about anupānas to be taken in conjunction with inorganic medicinal substances prepared by means of alchemical processes. These substances are the dhātus (chapter one), upadhātus (chapter two), mercury (rasa) and its compounds (chapter three), sulphur (gandhaka) and its compounds (chapter four), the uparasas (chapter five), and the ratnas (chapter six). Chapter seven is on diverse anupānas. Alchemical topics, such as the śodhana and māraṇa of the dhātus, etc., and the mythical origin of mercury, are also dealt with. The preparation of rasakarpūra, to be used in the treatment of syphilis, is described in chapter three (76–84).

The author employs, in order to designate śūla, the unusual term śivaśastrābhidhagada (3.69).[19] Noteworthy words are also varakha (1.26 and 2.55)[20] and gulkanda (6.21).[21]

The Anupānataraṅgiṇī is quoted in the Pāradasaṃhitā.

At the end of the work the author gives his genealogy: Bālaśarman, a brāhmaṇa of Kānyakubja lineage, living on the banks of the Bhāgīrathī, i.e., the Ganges – Vīreśvara – Kāśīnātha – the physician Govardhana – the physician Tāpīrāma – Sītārāma — Raghunāthaprasāda (7.30–34).[22]

The author was probably active during the second half of the nineteenth century.[23]

ĀROGYADARPAṆA, compiled by Jagannātha Śarman.[24]

ĀROGYAKALPADRUMA by Kaikkulaṅṅara Rāma Vāriyar (1832–1896).[25] This treatise is a therapeutic manual in verse; its author is a poet who is well known in Kerala.[26]

ĀROGYASTOTRA by Gaṅgādhara.[27]

ĀRYAGṚHACIKITSĀ by Vinodalāla Sena.[28]

AUṢADHASINDHULAHARĪ, compiled by Kṛṣṇadāsavasumallika.[29] The same author wrote a Bengali commentary on the Mādhavanidāna, called Nidānārthacandrikā.[30]

AUṢADHIKALPALATIKĀ, compiled by Bastīrāma.[31]

ĀYURVEDADARPANA, compiled by Nārāyaṇa Rāy from Caraka, Suśruta, Vāgbhaṭa, Hārīta and other authorities.[32]

ĀYURVEDAPARIBHĀṢĀ, compiled by Śāradācaraṇa Senagupta and Pyārīmohana Deva.[33]

ĀYURVEDĀRTHACANDRIKĀ, compiled by Śyāmācaraṇa Gupta.[34]

ĀYURVEDAŚABDĀRṆAVA, compiled by Gaṅgāprasāda Śarman, son of Guru Dīnalāla Śarman of Dvivedipura. This work is a glossary of materia medica, compiled from Sanskrit authorities and with explanations in Hindī.[35]

ĀYURVEDASAṂGRAHA by Gaṅgādhara.[36]

ĀYURVEDASAṂGRAHA, compiled by Devendranātha Senagupta and Upendranātha Senagupta. This work consists of a collection of extracts from the treatises of Caraka, Suśruta and Vāgbhaṭa, and from the Rasaratnākara, Rasaratnasamuccaya, Kūṭamudgara, Nāḍīvijñāna, etc.[37]

ĀYURVEDASĀRASAMGRAHA, compiled by Gopālacandra Senagupta.[38]

ĀYURVEDASUDHĀKARA by Raghunāthaprasāda Sukala.[39]

ĀYURVEDAVIJÑĀNA[40] by Vinodalāla Sena.[41]

This comprehensive treatise, written in verse and prose, is divided into four sections: sūtrasthāna (78 chapters), śārīrasthāna (15 chapters), dravyasthāna (41 chapters and a pariśiṣṭa), and nidāna-cikitsitasthāna (87 chapters).

The sūtrasthāna deals with the descent of āyurveda (āyurvedāvataraṇa), technical rules (paribhāṣā), pañcakarman, the preparation of caustics (kṣārapāka), bloodletting (raktasrāva), the examination of a patient (rogiparīkṣā), blunt and sharp instruments (yantraśastrādivarṇana), the purification and killing of the dhātus (dhātuśodhanamāraṇa), etc.

The śārīrasthāna is about anatomy and physiology; the dravyasthāna is concerned with materia medica.[42]

Chapter one of the nidāna-cikitsitasthāna is devoted to general concepts related to pathology, chapters two to eighty-two are concerned with the nidāna and treatment of diseases. These diseases are arranged in a way that completely differs from Mādhava's order, while many new diseases are described too. The order of chapters two to twenty-five may serve as an example: jvara, viṣamajvara, jvaracikitsā, jvarātisāra, plīhan, yakṛdroga, pāṇḍu-kāmalā-halīmaka, śotha, udara, raktapitta, rājayakṣman, kāsa, svarabheda, hikkā-śvāsa, hṛdroga, urastoya, krimi, agnimāndya, arocaka, atīsāra, grahaṇī, amlapitta, śūla, gulma.

The subjects of chapters eighty-three to eighty-seven are: apamumūrṣu, vīryasta-

mbha, rasāyana, vājīkaraṇa, and karmavipāka. The treatise ends with a short pariśiṣṭa. The treatments described are of a mixed type: āyurvedic prescriptions and rasayogas are found side by side.

The influence of western medicine is clearly discernable in the Āyurvedavijñāna.

Sources referred to in the introductory part of the work[43] are: Bhāvaprakāśa, Cakradatta, Caraka, Hārīta, Rasaratnākara, Rasendracintāmaṇi, Suśruta, Vāgbhaṭa, and Vaṅgasena.

Sources and authorities quoted or referred to in the body of the treatise are: Ātreya (II: 376), Bhāvaprakāśa (II: 95), Bhoja (II: 432, 551, 558), Caraka (II: 464, 504), Dakṣiṇāmūrtisaṃhitā (II),[44] Kārttika (II: 472), Kāśyapasaṃhitā (II: 607), Śabdakalpadruma (II: 196), Śākteyagrantha by Dhanvantari (II: 196), Śātātapa (II: 632), Suśruta (II: 24, 94, 97, 217, 464, 488, 504, 512, 560), Urabhra (II: 376), and Videha (II: 479).[45]

The Āyurvedavijñāna is one of the sources of Āryadāsa Kumārasiṃha's Kvāthamaṇimālā, the Bheṣajasaṃhitā, and Devasiṃha Viṭṭhal's Bṛhadāsavāriṣṭasaṃgraha; it is quoted in the Pāradasaṃhitā and Rasayogasāgara.

Dissection is recommended for anatomical studies. The circulation of the blood is described.[46] The contraction of the pupil caused by opium and its dilatation by Datura seeds are known to the author. Percussion (abhighātaparīkṣā) and auscultation (śravaṇaparīkṣā) are described, but not the stethoscope. The number of bones is said to be 246, in agreement with Urabhra, who is quoted on the subject. The terms dhamanī and nāḍī are used to designate arteries; a lymphatic vessel is called a srotas and a nerve a snāyu. The functions of heart and lungs and the digestive processes are described in agreement with western medicine, as well as the urinary tract and the reproductive organs.[47]

Noteworthy substances mentioned in the dravyasthāna are:[48] amaravallī,[49] antamala,[50] dhūnarāja,[51] kaṭuvīrā,[52] mahātiktā,[53] majjaphala,[54] picchilā,[55] pītakūṣmāṇḍa,[56] pītamūlī,[57] pīvarī,[58] prajāvatī,[59] sahāsāra,[60] saṃvidā mañjari,[61] śārdūlakanda,[62] śītabīja,[63] srāvikā, śrīvāsasāra,[64] sudhāmūlī,[65] surapriya,[66] svarṇapattrī,[67] śyāmabīja,[68] śyāmaparṇī,[69] and viśalyakaraṇī.[70]

The dravyasthāna also describes some recently introduced oils,[71] such as dīpyakataila, jātīphalataila, khasabījataila, lavaṅgataila, nikumbhataila, rālataila, vātādataila,[72] and yakṣadrumataila.

Special features of the nidāna-cikitsitasthāna are:[73] three series of thirteen saṃnipāta fevers;[74] the chapter on plīhan (6) adds verses, which may derive from the author himself, to those found in the Mādhavanidāna; the chapter on diseases of the liver (yakṛdroga; 7) may have been written by the author and describes, for example, the surgical treatment of a liver abscess (61); the chapter on rājayakṣman (10) includes the treatment of a disorder called kaṇṭhakṣata; the chapter on hṛdroga (16) describes a series of new diseases: āvaraṇika, kauṣṭhika, pṛthuka, āyāmikā, parikṣaya, medaḥsūtra, and vikṣepikā;[75] new terms employed in the chapter on diseases of the heart are hṛdvepathu or koṣṭhasaṃvepana (a kind of arrhythmia) and hṛtkoṣṭhapeśīsūtra (the muscle fibres of the heart); the description of vaccination against smallpox in the chapter on masūrikā (31) agrees with a quotation in the Śabdakalpadruma from

a Śākteyagrantha by Dhanvantari;[76] the variety of masūrikā, called romāntikā, is described according to some unknown source (a granthāntara); śītalā is not mentioned in the chapter on masūrikā; śvitra is described in detail in the chapter on kuṣṭha (33); a description of aupasargikopadaṃśa, i.e., syphilis, is found in the chapter on upadaṃśa (38); aupasargikopadaṃśa is also called pāpopādaṃśa and viṣopadaṃśa, but the term phiraṅgaroga is absent; the first stage of syphilis is called mukhya, the later stages are designated by the term gauṇopadaṃśa; vradhna[77] is described in the chapter on vṛddhi (45); the chapter on vātavyādhi (47) contains a new disease, āgantuja pakṣāghāta;[78] the chapter on mūrchā and related disorders (53) describes śaiśavasaṃnyāsa,[79] not known from other treatises; the chapter on women's diseases (strīroga; 79) contains descriptions of some new diseases: raktamādrī, ṣaṣṭhībādhaka, aṅkura, jalakumāradoṣa, yonyākṣepa,[80] yonyaṅkuravṛddhi or -saṃvṛtti,[81] jarāyuroga,[82] and aṇḍādhāragada; the chapter on vīryastambha (84) consists of prescriptions which are thought to delay ejaculation during intercourse; the chapter on karmavipāka (87) consists of quotations from Śātātapa.

The nidāna-cikitsitasthāna describes a series of diseases,[83] together with their treatment, which are also found in Govindadāsa's Bhaiṣajyaratnāvalī: urastoya (chapter 17),[84] pāradavikāra (chapter 40),[85] smaronmāda (chapter 51),[86] gadodvega or apadārthagada (chapter 52),[87] yoṣāpasmāra (yoṣāpasmārādhikāra of chapter 54 on apasmāra),[88] tattvonmāda (chapter 56),[89] acalavāta (chapter 57),[90] khañjanikā (chapter 58),[91] tāṇḍavaroga (chapter 59),[92] snāyuśūla (chapter 60),[93] klomaroga (chapter 61),[94] vṛkkāmaya (chapter 62),[95] bahumūtra,[96] madhumeha,[97] somaroga and mūtrātisāra (chapter 67),[98] śukrameha,[99] aupasargikameha,[100] ojomeha,[101] and lasikāmeha (chapter 68),[102] dhvajabhaṅga (chapter 69),[103] śīrṣāmburoga (76),[104] mastiṣkavepana[105] and mastiṣkacayāpacaya (chapter 77),[106] aṃśughāta[107] and skhālitya (chapter 78),[108] yonikaṇḍū[109] and aṇḍādhāragada or ḍimbādhāragada (chapter 79),[110] and apamumūrṣu (chapter 83).[111]

Both āyurvedic recipes and rasayogas are found in the verses on treatment. References to formulae described in volume I are frequent.

Noteworthy substances prescribed are: kirāva (537),[112] nallakī (536), pītamūlī (48, 49, 57, 59). and tāmramūlī (50).[113] Opium (ahiphena, bhogiphena, phaṇiphena, etc.) is rather frequently mentioned.[114]

The author states at the end of the work that he was a grandson of the physician Nityānanda and a son of Rājakiśora; he adds that he was a resident of Ambikā.

The author informs us at the end of his work that it was printed in 1883.[115]

ĀYURVEDĪYADRAVYĀBHIDHĀNA by K.B. Lāl Sengupta.[116]
ĀYURVEDĪYAKAUTUKAVILĀSA, compiled by Rāmamohana Vidyāvinoda.[117]

ĀYURVEDĪYAPARIBHĀṢĀ by Gaṅgādhara.[118] This work, consisting of 314 verses and prose passages, arranged in seven chapters (prakaraṇa), deals with the following subjects: (1) weights and measures (māna), (2) the rules to be applied when the parts of a plant to be used, the quantities and ratios of ingredients, etc., are not explicitly mentioned in recipes (anuktaprakāśana), (3) details on the preparation of a kalka, etc., (4)

the elucidation of obscure points in the preparation of medicines (avyaktavivecana), (5) rules for a pāka, (6) deliberations on the prakṣepa (ingredients to be added to a compound medicine), and (7) the elucidation of subjects merely hinted at in medical treatises (leśoktaviveka).

Works and authors quoted are: Carakasaṃhitā, dharmaśāstra, Dṛḍhabala, Manusmṛti, smṛtiśāstra, Suśrutasaṃhitā, Taittirīyopaniṣad, Viṣṇusaṃhitā, and Yājñavalkyasaṃhitā.

ĀYUSTATTVAVIJÑĀNA by Vinodalāla Sena.[119]
BHAIṢAJYA-DHANVANTARI, compiled by Candrakāntadāsa Kavirāja.[120]
BHAIṢAJYARĀMĀYAṆA by Gaṅgādhara.[121]
BHAIṢAJYARATNĀVALĪ, compiled by Ravidatta Śāstrin, son of Śivasahāya, of Beri.[122]
BHAIṢAJYAVIJÑĀNA, compiled by Īśānacandra Vandhyopādhyāya.[123]
BHĀSKARODAYA by Gaṅgādhara.[124]

The BṚHANNIGHAṆṬURATNĀKARA,[125] compiled by Dattarāma,[126] is a very large medical treatise of an encyclopaedic nature.

Volume one consists of an introduction and nineteen chapters (adhyāya). The introduction contains a maṅgalācaraṇa, the genealogy of the author, and verses on the position of āyurveda among the sciences.

Chapter one deals with definitions of āyurveda, the eight parts (aṅga) of āyurveda,[127] and the origin of āyurveda (āyurvedotpatti).

The first part of the story about the origin of āyurveda, up to the appearance of Suśruta, has been taken from the Bhāvaprakāśa. Added to it by Dattarāma are: the appearance of Vāgbhaṭa; an enumeration of the eighteen āyurvedic saṃhitās by Hārīta, Suśruta, Parāśara, Bhoja, Bheḍa, Bhṛgu, Agniveśa, Caraka, Cyavana, Agasti, Vārāha, Vāgbhaṭa, Nārāyaṇa, Nārasiṃha, Ātreyaka, Atri, Śaśin, Śiva, and Bhāskara;[128] a series of authors and works on rasaśāstra;[129] the Rasaratnākara by Siddha Nityanātha and the Rasendracintāmaṇi by Ṭuṇṭūninātha; the Rugviniścaya by Mādhavakara; the names of a series of commentators: Bhaṭṭāra, Jejjaṭa, Gadādhara, Vāpyacandra, Śrīcakrapāṇi, Bakula, Īśvarasena, Īśāna, Kārttika, Sukīra, Sudhīra, Maitreya, and Mādhava;[130] Cakrapāṇi's Cakradatta; the Nighaṇṭurāja by Narasiṃha from Kaśmīr; Bhāvamiśra and his Bhāvaprakāśa.

Chapter one ends with verses on basic concepts.

Chapters two, three and four are almost identical with chapters two, three and four of the Sūtrasthāna of the Suśrutasaṃhitā and bear the same titles. Chapters five, six and seven, also taken from the Suśrutasaṃhitā, agree with chapters one, two and three of its Śārīrasthāna, but some new material has been added to the text of Suśruta. Chapter eight is based on chapter four of the Śārīrasthāna of the Suśrutasaṃhitā, but contains a large number of additions which betray the influence of western anatomy. Chapters nine to fourteen are, apart from some extra material, the same as chapters five to ten of the Śārīrasthāna of the Suśrutasaṃhitā; chapters fifteen to nineteen are the same as chapters five, seven, eight, nine, and twenty-five of the Sūtrasthāna of the Suśrutasaṃhitā.

Volume two contains chapters twenty to thirty-four. Chapters twenty to twenty-four are practically the same as chapters eleven to fifteen of the Sūtrasthāna of the Suśrutasaṃhitā. Chapter twenty-five is partially the same as chapter twenty-one of Suśruta's Sūtrasthāna. Chapters twenty-six to twenty-nine contain the complete text of the Caryācandrodaya, a work on ṛtucaryā, dinacaryā and rātricaryā, compiled by Dattarāma and also published as a separate work.[131] Chapter thirty is identical with chapter ten of the Sūtrasthāna of the Suśrutasaṃhitā. Chapters thirty-one and thirty-two are on prognostic signs (dūtavarṇana; śakunavarṇana). Chapter thirty-three consists of a separate treatise, in 149 verses, on dreams and their meaning, the Svapnaprakāśikā. Chapter thirty-four contains Dattarāma's treatise on pulse-examination, the Nāḍīdarpaṇa;[132] it is followed by twenty-three verses on the examination of the pulse according to the Yūnānī system and eighteen verses on the same subject according to western medicine.

Volume three has not been accessible to me.

Volumes four to six are devoted to diseases and their treatment. Their contents are for a very large part identical with those of volume two of the Nighaṇṭuratnākara. The verses on karmavipāka and astrology are different in a small number of instances.[133]

Volumes seven and eight contain an extensive nighaṇṭu, the Śāligrāmanighaṇṭubhūṣaṇa, compiled by Śāligrāma. It describes the names and properties of a large number of medicinal substances in twenty-seven vargas and a pariśiṣṭa; the botanical, vernacular and English names are also recorded in most of the cases.

Sources, mentioned in volumes one, two, and four to six, are: Ātreya (II: 492), Bharadvājasaṃhitā (I: 98), Bhāvaprakāśa (I: 168), Bhoja (I: 245), Bhojanakutūhala (II: 646), Brahmāṇḍapurāṇa (II: 689), Bṛhatsaṃhitā (I: 98–99), Bṛhadyogataraṅgiṇī (I: 59), Caraka (I: 136, 199 and 310; IV: 222), Hariścandra (II: 541), Kṣemendra (II: 489), Madhukoṣa (II: 452), Manu (I: 107), Padmapurāṇa (IV: 221), Pārāśara (V: 1), Saṃgraha (I: 114 and 160), Śārṅgadhara (I: 169), Suśruta (I: 106), Vāgbhaṭa (I: 104, 111, 112, 118, 145, 165, 186, 205; II: 450, 493, 498), Vaidyasārasaṃgraha (II: 494 and 501), Vaiṣṇavāgama (I: 137), Varāhamihira (I: 100), Vṛddhavāgbhaṭa (I: 177 and 317), and Yogārṇava (IV: 276).

Sources mentioned in the Śāligrāmanighaṇṭubhūṣaṇa are: Amarakośa (807), Ātreyasaṃhitā (35, 39, 42, 45, 47, 128, 247, 282, 400, 403, 492, 510, 538, 565, 572, 573–574, 583, 613, 616, 637, 678, 688, 845, 870, 890, etc.),[134] Bhaiṣajyacikitsā (47, 87),[135] Bhāvaprakāśanighaṇṭu (passim), Dhanvantarinighaṇṭu (passim), Dravyacihna (14),[136] Dravyaguṇa (826, 830), Dravyaguṇadīpikā (1021),[137] Gaṇanighaṇṭu[138] (45, 164, 234, etc.),[139] Hārītasaṃhitā (816, 818, 823, 833, 835, 843, 864, 899, 918, 934, 965, 966, 968, 969, 971–972, 981, 984, 994, 995, 996, 997, etc.), Kaiyadeva (164), Koṣa (771), Laṅkānātha (1073),[140] Laṅkeśa (173),[141] Madanapālanighaṇṭu or Madanavinoda (passim), Nighaṇṭucūḍāmaṇi (166), Nighaṇṭuratnākara (passim), Nighaṇṭusaṃgraha (208), Niruktaratnākara (26),[142] Prayogāmṛta (34), Rājanighaṇṭu (passim), Rājavallabhanighaṇṭu (passim), Rasacandrikā (237, 736), Rasendrasārasaṃgraha (238), Ratnākara (759, 761, 763, 765, 767, 774, 793–794, 810, 902, 913, 925, 935, 938, etc.), Śivanighaṇṭu (155, 164, 196),[143] Śoḍhalanighaṇṭu (passim), Suṣeṇa (258, 583, 864, 901, 994, 1089), Suśrutasaṃhitā (494, 498, 553, 599, 619, 769, 995, etc.),[144] Trikāṇḍaśeṣa (922), Vāgbhaṭa (814, 828, 831, 843, 858), Vaidyanigha-

ṇṭu (128, 132, 353, 813, 977), Vaidyajīvana (682), Vikāratimirabhāskara (129, 243, 257, 306),[145] Viṣṇudharmottara (771), Vṛddhasuśruta (979), and Yuktikalpataru of Bhojarāja (791, 795).[146]

The Bṛhannighaṇṭuratnākara is one of the sources of Āryadāsa Kumārasiṃha's Kvāthamaṇimālā, the Bheṣajasaṃhitā, and the Rasoddhāratantra. The Śāligrāmanighaṇṭu(bhūṣaṇa) is quoted in Gulrājśarmamiśra's commentary on the Āyurvedaprakāśa and in the Rasadhātuprakāśa.

Some anatomical descriptions of chapter eight of volume one betray the influence of western anatomy.[147] The diseases dealt with are the same as in the Nighaṇṭuratnākara, but the seven types of śītalā and the hymn to Śitalā are omitted.

Noteworthy substances described in the Śāligrāmanighaṇṭubhūṣaṇa are:[148] ādityapattrā, four types of ahiphena (231–232: śveta-, kṛṣna-, pīta-, citravarṇa), ākārakarabha (155–156), two types of ākhukarṇī (478–480: bṛhatī and laghvī ākhukarṇī),[149] several types of ālu (942–946: raktālu,[150] rājālubheda, gajakarṇālu, mukhālu, kāsālu,[151] phoṇḍālu, pānīyālu, nīlālu,[152] śubhrālu; 954–955: śaṅkhālu,[153] kāṣṭhālu,[154] madhurājāluka, raktarājāluka, śvetālu, kṛṣṇavanāluka, vanāluka), anannāsa (633),[155] āri (1236),[156] three types of ativiṣā (219–220: śuklā, kṛṣnā, aruṇā), two types of bhallātaka (222–225: bhallātaka and nadībhallātaka),[157] bhissaṭā (1252),[158] bhramaracchallikā (1236–1237),[159] bhūśimbikā (647),[160] two types of bījapūra (578–581: bījapūra and vanabījapūra), two types of bimbī (912–915: bimbī and tiktabimbī), cāha (1216–1217),[161] six types of campaka (493–496: campaka, śveta-, nāga-, sultāna-, nīla-, bhūmicampaka),[162] caṇḍālakanda (952),[163] candrikā (131–132: = candraśūra), cīḍā (27),[164] copacīnī (153–155), three types of dantī (395–398: dantī, bṛhaddantī, bhadradantī), two types of devadāru (26–27: snigdhadāru and kāṣṭhadāru),[165] ekavīra (1234–1235),[166] elīyaka (420),[167] eraṇḍacirbhiṭa (1246–1247: = vātakumbhaphala),[168] gaṅgāṭi (422),[169] three types of gholikā (865–866: gholikā = loṇī,[170] rāja- and kṣudragholikā), granthigobhī (1256),[171] two types of hapuṣā (156–157: hapuṣā and svalpaphalā hapuṣā), hastajoḍi (953),[172] five types of hayāri (307–309: śveta, rakta, pāṭala, pīta, kṛṣṇa),[173] herambavṛkṣa (1244),[174] īṣadgola (1218–1219),[175] seven types of jambū (648–651: jambū, mahā-, kṣudra-, kāka-, bhūmi-, rāja-, jalajambū),[176] jhaṇḍu (518),[177] jhilla (1234),[178] jhullapuṣpa (1251–1252),[179] six types of kadalī (557–564: kadalī, āraṇya-, kāṣṭha-, suvarṇa-, mahendrakadalī, kṛṣṇā kadalī), kājūtaka (647–648),[180] three types of kāñcana (323–325: rakta, śveta, pīta), karalī (880–881),[181] six types of karañja (336–340: karañja, mahā-, ghṛta-, guccha-, pūtikarañja, kaṇṭayukta karañja),[182] six types of karkaṭī (893–896: karkaṭī, ervāruka, tṛtīyākarkaṭī, araṇyakarkaṭī, tikta-, cīnākarkaṭikā),[183] seven types of karpūra (1–6: karpūra, potāśraya, īśāvāsa, himakarpūraka, udayabhāskara, parṇakarpūraka, cīnakarpūra), two types of kaṭabhī (700: kaṭabhī and śvetakaṭabhī), kaṭuvīrā (1219–1220),[184] five types of khadira (671–674: rakta- and śvetasāra khadira, viṭkhadira, laghu-, vallīkhadira),[185] four types of kharjūrī (569–572: kharjūrī, bhūmi-, piṇḍakharjūrikā, sulemānī), kṛṣṇabīja (404),[186] kṣudrabadāma (1248),[187] kṣudraketakī (420–421),[188] kuraṇḍikā (1229–1230),[189] two types of lajjālu (456–457: lajjālu and viparītā lajjālu), māḍa (708),[190] mahākāya (859),[191] mahārāṣṭrī (1222),[192] makhānna (1232),[193] māravallī (1233),[194] māyāphala (1212), nāgajihvā (1250),[195] two types of nārikela (565–568: nārikela and mohajātīyaka nārikela), five types of pāṭalā (265–267: pāṭalā, śvetā, bhū-, kṣudrā, vallīpāṭalikā), pattragobhī (1256),[196] four types of pippalī (116–123: pippalī, saiṃhalī, vanapippalī, markaṭī),[197] several varieties of pūgaphala (607–611: āndhrodbhava, campāvatībhava, roṃṭasaṃjña, valgulagrāmaja, candāpurabhava, guhāgarodbhava, nailavadgrāmasaṃbhūta), puṣpagobhī (1255),[198] rājagiri (1253),[199] rāmaphala (632),[200] revaṭcīnī (1215),[201] sahasramūlikā (874),[202] sājaḍa (708),[203] sājaka (821–822),[204] samudraśoṣa (1239),[205] sarpadaṃṣṭrā (1223–1224),[206] sītāphala (631–632),[207] sudhāmūlī (1219),[208] svarṇapattrikā (403),[209] tailakanda (952),[210] tamākhu (1217–1218),[211] tejomantha (270),[212] triparṇī (953),[213] several types of tṛṇa (373–377: ūṣala, ikṣudarbhā, gomūtrikā, śilpikā, niḥśreṇikā, garamoṭikā, majjara, mṛgapriya, vaṃśapattrī, manthānaka, dhenupriya, pallivāha, lavaṇatṛṇa, paṇyandhā, guṇḍa, vṛttaguṇḍa, caṇikā, guṇḍāsinī, śūlī), three types of tulasī (524–525, 530–531: śvetā and kṛṣṇā tulasī, āraṇyatulasī), tuvara (1245– 1246),[214] three types of udumbara (658–661: udumbara, nadyudumbarikā, kākodumbarikā), two types of vaṃśa (361–363: vaṃśa and randhravaṃśa),[215] vanapsā (1254),[216] two types of vṛddhadāru[217] (1238: vṛddhadāruka and phañjī), three types of yāvanāla (819–821: dhavala, tuvara, śārada),[218] and three types of yavānī.

Dattarāma, who descended from a family of Māthurīya brāhmaṇas, gives in the introductory verses of the Bṛhannighaṇṭuratnākara the following information on his ancestors: he was the son of Kṛṣṇalāla, and grandson of Hariścandra; the latter was the youngest of the three sons of Ghāsirāma, in his turn the son of Gopīnātha.

Śāligrāma, the compiler of the Śāligrāmanighaṇṭubhūsaṇa, was a Māthura vaiśya, of Candravaṃśa and Āhlādagotra. At the end of the work he informs us of his genealogy: Bālamukunda – Govardhanadāsa – Hariyaśarāja – Gopāladāsa – Puruṣottamadāsa – Motīrāma – Padmanetra – Ghanaśyāmadāsa – Sītārāma; Śāligrāma was the son of Ānandarūpa, also called Khusālarāya, the youngest of the three sons of Sītārāma.

Śāligrāma was born in Murādābād in 1831/32. Besides the Śāligrāmanighaṇṭubhūṣana, he also wrote the Śāligrāmauṣadhaśabdasāgara or Āyurvedīya Ausadhīkoṣa[219] and a rather large number of Hindī translations of Sanskrit medical works. In 1897/1898 he founded the Āyurvedoddhāraka dispensary in Murādābād.[220]

CARYĀCANDRODAYA[221] by Dattarāma, son of Kṛṣṇalāla.[222] This is a rather comprehensive treatise, for the greater part in verse,[223] on ṛtucaryā (chapter one; 1–57), dinacaryā (chapter two; 58–236), and rātricaryā (chapter three; 236–272).

A large part of chapter two is devoted to articles of food, their qualities and actions. Numerous dishes are described, in part known from earlier treatises such as the Madanapālanighaṇṭu and Bhāvaprakāśanighaṇṭu. The descriptions are, however, not quoted from these works. Some noteworthy dishes are: agastyasāraka (140), bhaimīlapsikā (104), gulorikā (107–108), khājā (110–111),[224] kvāthalī (148), mallapūpa (111), māṣaraṅgī (151), and niṣpanda (102). Vernacular terms are sometimes employed: baraphī (198),[225] haluvā (196),[226] peḍā (197). Sources are occasionally referred to: Ātreya (27), Bhojanakutūhala (177),[227] Brahmāṇḍapurāṇa (219), Kṣemendra (25), Vāgbhaṭa (28 and 34), and Vaidyasārasaṃgraha (29 and 36).

The entire text of the Caryācandrodaya forms part of Dattarāma's Bṛhannighaṇṭu-

ratnākara.[228]

CIKITSĀCAKRASĀRA, compiled by Dvārakānātha Datta Kavirāja.[229]
CIKITSĀJÑĀNĀÑJANA, compiled by Prasannacandra Śiromaṇi.[230]
CIKITSĀMAÑJARĪ, compiled by Mahimacandra Sena.[231]

CIKITSĀSAṂGRAHA by Bholānāthamiśra. The author, a resident of Mustafapur in the district of Paṭnā and the great-grandfather of P.V. Sharma, completed this work in 1890/91.[232]

CIKITSĀSAṂGRAHA by Prabhunāthamiśra. The author, a resident of Mustafapur in the district of Paṭnā and the grandfather of P.V. Sharma, completed this work in 1871/72.[233]

COBACĪNĪPRAKĀŚA by Madhusūdanaśarman Gosvāmin.[234] This work is a monograph on the China root or sarsaparilla (cobacīnī, copacīnī, covacīnī),[235] a drug employed in the treatment of syphilis and other diseases. The author was a son of Vrajarāja Gosvāmin and father of Rādhākṛṣṇa and Devīdattaprasāda. He was attached to the court of Raṇajīt Siṃha (1780–1829).[236]

DRAVYAGUṆĀBHIDHĀNA by Vinodalāla Sena.[237]

DRAVYĀRTHACANDRIKĀ (or Āyurvedīyadravyaguṇābhidhāna), compiled by Siddheśvara Gupta.[238]

HASTĀMALAKA by Vaidya Bavabhai. This is a treatise on the preparation of metallic compounds, written in 1859.[239]

HINDUVAIDYAŚĀSTRA, compiled by Subrahmaṇya Śāstrin.[240]

HṚDAYAPRIYA[241] by Parameśvara.[242] This work[243] is divided into four sections (khaṇḍa) with a total of sixty chapters. The first three sections, comprising forty-eight chapters, are based on the Aṣṭāṅgahṛdayasaṃhitā; the last section contains formulae taken from other sources. The author states at the beginning of his work that many verses of the Hṛdayapriya were taken verbatim from the Aṣṭāṅgahṛdayasaṃhitā, while other stanzas were composed by himself, without deviating from the sense of those found in Vāgbhaṭa's work.[244]

Quotations from the Hṛdayapriya are found in 'Indian medicinal plants' by P.K. Warrier, V.P.K. Nambiar and C. Ramankutty (1994–1996).[245]

Noteworthy plant names from the work are: aghorī,[246] bhadrā,[247] bhūkesara,[248] gāruḍī,[249] kṣetrajñabhūṣā,[250] rajatāri,[251] śaśaśruti,[252] and vairī.[253]

Parameśvara[254] was a śivadvija, i.e., a brāhmaṇa of the Mūssad caste, which ranks highly among the Ambalavāsi of Kerala.[255] He was born in Vaikom (to the north of Travancore) and adhered to the family tradition of serving the Śiva temple of Vaikom, from his eleventh to his seventeenth year. In the early part of his career as a man of letters he became attached to the palace of Koṭuṅṅallūr, i.e., Cranganore, as a disciple and protégé of Godavarman Yuvarāja (1800–1851), who was a great patron of learning and a Sanskrit scholar himself.[256] According to a local tradition, Parameśvara studied āyurveda in order to get rid of a persistent skin disease. In his later years he acquired great fame as a medical practitioner and was honoured by three successive Mahārājas of Travancore, viz. Uttanam Tirunāl, Āyilyam Tirunāl and Visākham Tirunāl.

The Hṛdayapriya was composed in 1864. Parameśvara died in 1887.[257]

KALPASĀGARA, an anonymous work on the art of preparing medicines, composed under the patronage of Raṇavīra Siṃha, who ascended the throne of Jammū in 1857.[258]

LOKAHITAVAIDYAŚĀSTRA, a manual of pharmacology, compiled by Kunnumburattu Cheriyakelan Vaidyan.[259]

LOLAMARĀJA, also called Vaidyajīvana, a treatise in Hindī verse, composed by Benīprasāda in 1842/43. It is in the form of a dialogue between a man and a woman and has been modelled on Lolimbarāja's Vaidyajīvana.[260]

MṚTYUÑJAYASAṂHITĀ by Gaṅgādhara.[261]

MṚTYUSAṂJĪVANĪ, charms and antidotes against all kinds of poison, snake-bites, etc., compiled from Suśruta and other authors, and translated into Bengali.[262]

NIDĀNADĪPIKĀ by Vyaṅkaṭeś Kṛṣṇa Karaṃdīkar,[263] a compilation from various sources on nidāna.[264]

Adhyāya I: (1) paribhāṣākathana; (2) nibandhanirūpaṇa; (3) doṣadhātumalakṣayavṛddhikathana. Adhyāya II (kālajñānīya): (1) grahāvalokana; (2) āyurjñānīya; (3) kālajñānīya; (4) dūtasvapnaśakunajñānīya. Adhyāya III: (1) jvara; (2) saṃnipāta, āgantujvara, viṣamajvara, śītavātādi. Adhyāya IV: yakṣman, śoṣa, kāsa, śvāsa, hikkā, arocaka, chardi, svarabheda, dāha, tṛṣṇā, hṛdroga, urograha, śleṣmaroga. Adhyāya V: pāṇḍuroga, raktapitta, raktāmaya, raktāśrayavyādhi, pittavyādhi, vātaśoṇita, vidradhi, arbuda, ślīpada, udara. Adhyāya VI (pacanāśayavyādhivijñānīya): agnimāndya, ajīrṇa, kṛmivāta, gulma, ānāha, śūla, amlapitta, śītapitta, atisāra, ūrustambha, āmavāta, grahaṇī, arśas, antraroga, plīhayakṛdroga. Adhyāya VII (bastimūtrapiṇḍāmayakathana): mūtrakṛcchra, mūtrāghāta, aśmarī, meha, pramehapiṭikā. Adhyāya VIII (manovyādhyādivātavyādhijñānīya): mūrchā, madātyaya, mada, unmāda, apasmāra, vātavyādhi. Adhyāya IX: avāraṇīya, sadyomṛtyunidāna. Adhyāya X (tvagrogakathana): galagaṇḍa, gaṇḍamālā, apacī, granthi, visphoṭa, masūrikā, granthivyaktīkaraṇa, piṭikāvyaktīkaraṇa, kuṣṭha, śotha, vahnidagdhavraṇa, vraṇa, nāḍīvraṇa, āgantuvraṇa, visarpa, snāyuka, kṣudraroga. Adhyāya XI (guhyarogakathana): bhagandara, upadaṃśa, śūkadoṣa, śukradoṣa, ṣāṇḍhya, vṛddhi. Adhyāya XII (strīrogavijñānīya): yoniroga, yonikanda, pradara, garbhāśayaroga, vandhyātva, garbharoga, garbhiṇīlakṣaṇa, sūtikā, stanaroga, stanyaroga. Adhyāya XIII: bālāmaya, grahapīḍā. Adhyāya XIV (viṣatantra): jaṅgamaviṣa, sthāvaraviṣa. Adhyāya XV (ūrdhvāṅgarogajñānīya):

mukharoga, dantamūlaroga, oṣṭharoga, jihvāroga, tāluroga, kaṇṭharoga, mukhāntargataroga, karṇaroga, karṇapālīroga, durviddhasaṃbhavaroga, karṇamūlaroga, nāsāroga, śiroroga, kapālaroga, netraroga, vartmaroga, netrasandhigataroga, śuklagataroga, kṛṣṇagataroga, kācabindu, timiraroga, liṅganāśa, abhiṣyandaroga, adhimantharoga, sarvākṣiroga. Adhyāya XVI (nidānapūraṇīya): udāvarta, medoroga, kārśya, bhagna, janapadoddhvaṃsavyādhi, pañcakarmādyapacāraroga, nivāraṇīya.

Sources mentioned are:[265] Añjana[266] (I.1.15; 3.91; III.1.13 = Añjananidāna 11; 2.109, 111; IV.180 = Añjananidāna 73, and 260ab = Añjananidāna 135cd); Ātreya (I.1.16; 3.108); Bhaṭṭāraka (V.130); Bheḍa (III.2.178; XII.177); Bhoja (V.130; X.20); Bṛhajjātaka (II.1.1); Caraka (passim); Dhanvantari (I.1.16; III.2.238; XII.127); Dṛḍhabala (IV.264; V.219; XI.123); Hariścandra (IV.264); Hārīta (I.1.16; 3.103; III.2.238; IV.10); Hārītātreya (I.1.15; IV.10; V.30, 70); Jātūkarṇya (XII.84); Jejjaṭa (V.30; VI.137, 153); Jvaraparājaya (I.1.17; III.1.4, 43; 2.77, 184, 222, 230, 268, 295); Jyotirvid (II.1.1); Jyotiṣasārāvali (II.1.1); Kālajñāna (I.1.16; 3.34; IX.138); Kāśyapa (VI.155); Kṛṣṇavallabhin (I.1.15; III.2.106, 109, 124, 215, 268); Mādhava (I.1.15; 3.83; III.1.9, 12); Nidānasāra (I.1.16; 3.51, 166; III.2.196); Nighaṇṭu (I.3.91); Saṃnipātakalikā (I.1.17); Sārasaṃgraha (I.3.190; III.2.176, 196; V.35, 70, 74); Suṣeṇa (I.1.14); Suśruta (I.1.16 and passim); Svarodaya (I.1.16); Tisaṭa (I.1.14, 32, 40; 3.3); Upacārasāra (I.1.16; III.2.170, 176, 223; IV.201, 205, 267; X.4, 137); Vāgbhaṭa (I.1.16 and passim); Vīrasiṃha (I.1.14; 3.11, 88); Vṛnda (I.1.15; 3.3, 83); Yogaratnākara (IX.151, 155); Yogaśata (I.1.15; III.2.222).

The sources are not referred to consistently. Many verses borrowed from, for example, the Mādhavanidāna, are not indicated as such.[267]

The order of the diseases does not follow an established pattern and is peculiar to this treatise. Diseases or groups of diseases added to those found in the Mādhavanidāna are: urograha, śleṣmaroga,[268] raktāmaya,[269] raktāśayavyādhi, pittavyādhi,[270] antrarodha,[271] plīhayakṛdroga,[272] mada, vahnidagdhavraṇa, snāyuka, śukradoṣa, ṣāṇḍhya, garbhāśayaroga, vandhyātva, kapālaroga, durviddhasaṃbhavaroga,[273] karṇamūlaroga, janapadoddhvaṃsaroga,[274] and pañcakarmādyapacāraroga.

The chapter on saṃnipātajvara describes two series of thirteen fevers of this type: the first begins with sandhika,[275] the second with prorṇunāva.[276] Another fever characterized in this chapter is hāridraka.

The chapter on āgantujvara describes fevers called ajīrṇajvara, svedajvara, dṛṣṭijvara, malajvara, daivikajvara, and kālajvara.

The chapter on viṣamajvara mentions kṛmijajvara, bhūmivibudhajvara (= brāhmaṇajvara), kṣatrajvara, vaiśyajvara, and śūdrajvara.

The chapter on śītavāta describes a saṃnipātajvara called thus, which is of three types: madhyama, viṣama and adhama.

The raktāśayavyādhi is not mentioned in other treatises.[277]

Twenty-two children's diseases are distinguished: three doṣic types and an additional fourth type of dantodbheda, dantaghāta, dantaśabda, kāladanta, ahipūtana, mukhapāka, mukhasrāva, gudapāka, upaśīrṣaka, pārśvāruṇa, tālukaṇṭa, vicchinna, pārigarbhika, daurbalya, gātraśoṣa, śayyāmūtra, kukūṇaka, rodana, and ajagallī (XIII.1–4). Other children's diseases described are kṣīrālasaka (XIII.17), utphullikā (XIII.49), kunda (XIII.52), and gādarī (XIII.53).

The chapter on sthāvaraviṣa describes the symptoms of poisoning by haratāla (= haritāla), manaḥśilā, vaṅga (tin), mākṣikadhātu, apakvamalla, śulba (copper), nāga (lead), tuttha, darada (cinnabar), rasakarpūra, vatsanābha, dhattūra, ahiphena (opium), jepāla, snuhīkṣīra, and kāraskara.

Five types of karṇamūlaroga are distinguished, arising from vāta, pitta, kapha, saṃnipāta and blood respectively.

Other subjects added are: avāraṇīya,[278] sadyomṛtyu,[279] granthivyaktīkaraṇa,[280] piṭikāvyaktīkaraṇa,[281] garbhiṇīlakṣaṇa,[282] and nivāraṇīya.[283]

The Nidānadīpikā is interesting on account of its quotations from works like the Jvaraparājaya, Upacārasāra, etc.

The chapter on yonikanda, a disease described for the first time in the Mādhavanidāna, adds to Mādhava's verses the prodromes, quoted from the Upacārasāra and Sārasaṃgraha.

The author hailed from Mahārāṣṭra and was a pupil of Bālakṛṣṇa, son of Kāśīnātha.[284]

NIDĀNAPARIŚIṢṬA, a supplement to Mādhava's Rugviniścaya, written by Hārādhana Vidyāratna, son of Viśārada.[285]

The NIGHAṆṬURATNĀKARA, a large and comprehensive treatise, was compiled by Viṣṇu Vāsudeva Goḍbole and his associates.[286]

Volume one consists of twenty sections (prakaraṇa), subdivided into chapters (adhyāya) which are mostly in verse.[287] These sections are respectively devoted to the properties of medicinal substances (1; guṇadoṣaprakaraṇa), embryology and anatomy (2; suśrutaśārīraprakaraṇa), the eight ways of examining a patient (3; aṣṭavidhaparīkṣāprakaraṇa), general subjects and technical rules (4; sāmānyaparibhāṣā), alchemical apparatus (5; yantraprakaraṇa), puṭapāka (6; puṭakalpanāprakaraṇa), alchemical subjects (7–12; dhātuśodhanamāraṇa-, upadhātu-, pārada-, gandhaka-, abhraka-, haritālaprakaraṇa), collyria (13; añjanaprakaraṇa), and alchemical subjects again (14–20; hirākasa-,[288] gerū-,[289] uparasa-, ratna-, uparatna-, viṣa-, and upaviṣaprakaraṇa). Appended to volume one are the Arkaprakāśa and the Ajīrṇamañjarī. Volume two deals, in seventy-seven sections, with the aetiology, symptomatology, and treatment of diseases.

Section one of volume one, while mainly describing properties of drugs, adds sometimes a series of synonyms.[290] Section two is for the greater part identical with the Śārīrasthāna of the Suśrutasaṃhitā, but here and there some additional material has been incorporated. Section three not only deals with the eight types of examination (nāḍī-, mūtra-, mala-, jihvā-, śabda-, sparśa-, netra- and mukha-, and finally rūpaparīkṣā), but also with kālajñāna (i.e., signs foreboding death), the chāyāpuruṣa,[291] some general statements about diseases, the doṣas, and finally the signs of increase and decline of the doṣas, dhātus and malas. Section four is concerned with weights and measures, beneficial and unhealthy substances, substitutes for certain drugs, the tastes, the guṇas, vīrya, vipāka and prabhāva, dinacaryā, rātricaryā, ṛtucaryā, sneha, sveda,

vamana, etc., the five types of kaṣāya, etc. Section nine (pāradaprakaraṇa) describes, among other things, the eighteen saṃskāras to which mercury is subjected.

The sections of volume two are arranged in agreement with the Mādhavanidāna; at the end two sections have been added.

Sources are in general not referred to.[292]

The Nighaṇṭuratnākara is quoted in the Āyurvedīya Khanijavijñāna, Caube Kyākhūbadāsa's Ajīrṇatimirabhāskara, Hariprapanna's Rasayogasāgara, Hariśaraṇānanda's Kūpīpakvarasanirmāṇavijñāna, Nirañjanaprasāda Gupta's Pāradasaṃhitā, the Rasadhātuprakāśa, the Rasatattvavivecana, the Śāligrāmanighaṇṭubhūṣaṇa of the Bṛhannighaṇṭuratnākara, and the commentary on the Siddhabhaiṣajyamañjūṣā.

Noteworthy among the substances mentioned in the guṇadoṣaprakaraṇa are:[293] ādityapattrā (185), four types of ahiphena (4: śveta-, kṛṣṇa-, pīta-, citravarṇa), āhulī (92),[294] ājavalla and sugandhājavala (6), akalkara (2),[295] two types of ākhukarṇī (12: bṛhatī and laghvī ākhukarṇī), alitā (4), allaka (11),[296] several types of ālu (5: madhurājāluka, raktarājāluka, rājālubheda, śvetālu, kṛṣṇāluka, kṛṣṇavanāluka, kāṃsyāluka), four types of āmalakī (9: āmalakī, laghudhātrī, parṇāmalaka, rāyāmala), amaruphala (2), amlaparṇī (6),[297] āmlavallī (53),[298] three types of apāmārgaka (8: śveta-, rakta-, toyāpāmārgaka),[299] argaṭa (5),[300] three types of ativiṣā (4: śuklā, kṛṣṇā, aruṇā), two types of babbūla (138: babbūla and laghubabbūlaka), bāṃbī (138), bhṛṅgāhvā (142),[301] bhṛṅgamārī (142), bhūmidruma (106), bhūmīśiraḍikā (178), bhūmitanayā (93), two types of bimbī (103: bimbikā and tiktabimbī), two types of bola (140: rakta and kṛṣṇa), brahmarākṣasaka (169), four types of campaka (81–82: suvarṇa-, nāga-, śveta-, bhūmicampaka),[302] candraśūra (11), candrusa (86), cillikā (84), four types of cillī (82: śveta-, rakta-, śunacillī, cillībheda), coravallī (84), devadārī (106), devakumbhā (63), devanala (106),[303] two types of doḍī (107: doḍī and viṣadoḍī), dvīpāntaravacā (84), ekāṅgī (16),[304] ekavīrā (15), gandhapātrā (187), gaṅgāvatī (77), ghoḍekātharikā (80), three types of gholikā (80: gholikā, rājagholikā, kṣudragholikā),[305] godhūmī (129), gometha (77), gonasī (80), gopīcandanaka (76), gulghaṇṭikā (80), five types of hayāri[306] (46: śveta, rakta, pāṭala, pīta, kṛṣṇa), herambavṛkṣa (188),[307] hulī (93), four types of jambū (87–88: jambū, rāja-, kṣudra-, jalajambū), jhiñjhurḍī (91), kācā (60), six types of kadalī (51: kadalī, araṇya-, kāṣṭha-, suvarṇa-, mahiṣīkadalī, kṛṣṇā kadalī), kājūtaka (60),[308] two types of kākaḍa (60: bṛhat- and laghu-), kakundara (62), three types of kāñcana (55–56: rakta, śveta, pīta), two types of kāṇḍavallī[309] (56: caturdhārā and tridhārā), karambī (53), six types of karañja (46: karañja, mahā-, ghṛta-, guccha-, pūtīkarañja, kaṇṭayukta karañja), four types of kāravella (58–59: kāravella, bṛhat-, jalaja-, vanajakāravella), karavīraṇī (54), five types of karkaṭī (57–58: karkaṭī, dvitīyā karkaṭī, araṇyakarkaṭī, tiktakarkaṭikā, cīnā karkaṭikā),[310] several types of karpūra (54–55: karpūra, īśāvāsa, himakarpūraka, potāśraya, udayabhāskara, parṇakarpūraka, bāṇāsurapure jātaḥ), three types of kaṭabhī (52: kaṭabhī, kṣudrā and kṛṣṇā kaṭabhī), kaṭūdarī (174), kaṭukandārikā (53),[311] kaṭuvallī (53),[312] kemukā (64),[313] kenā (65), six types of khadira (69–70: raktasāra and śvetasāra khadira, viṭkhadira = arimeda, raktārimeda, laghukhadira, vallīkhadiraka), seven types of kharjūrī (68–69: kharjūrī, piṇḍa-, bṛhat-, madhukharjūrikā, bhūkharjūrī, dvīpāntarasthā and bṛhaddvīpāntarasthā kharjūrī),[314] two types of kharsambalī (69: raktā and kṛṣṇā), kośimbavṛkṣa (66–67),

kṣudrakāralikā (54), two types of kukkuṭaka (62: kukkuṭaka and devakukkuṭaka),[315] kukkuṭapādī (63), kulayī (63), kuṅkumāgaruka (86), two types of kuraṇḍikā (62: kṣudra- and bṛhatkuraṇḍikā), laghurājagira (168), two types of lajjālu (171: lajjālu and laghulajjāluka), lāṅka (112),[316] makhānna (144), makṣekṣikā (144), mañcapattrī (163), five types of māriṣa (151–152: rakta-, haridrakta-, amla-, jalamāriṣa), māyāphala (152), māyinī (152), motiriṅgaṇikā (92), mūṣakāri (12), three types of nāgavallī (116: nāgavallī, a samudratīrajā and a vṛkṣajā type), nakulavallikā (159), two types of nārikela (118: nārikela and mohajātīyaka nārikela), nimbārā (121),[317] pāṇḍuraphalī (129),[318] pareṇī (124), parvakāṣṭha (181), parvara (123),[319] five types of pāṭalā (128: śveta-, rakta-, kṣudra-, bhū-, vallīpāṭalā), paunarnavī (132), pedrubodāraka (133), piṇḍīra (133),[320] four types of pippalī (130: pippalī, saiṃhalī, markaṭī, vanasthā pippalī), pudina (132),[321] several types of pūgaphala (184: āndhrodbhava, campāvatībhava, roṭasaṃjña, valgulagrāmaja, candāpurabhava, guhāgarodbhava, nailāvatagrāmaja), rājāmrātaka (92), raktā hulī (93), two types of rāmabāṇa (168: rāmabāṇa and bṛhadrāmabāṇa), rāmaphala (168),[322] rāmaśāli (8), two types of sacintikāphala (185: sacintikāphala and mahāsacintikāphala), sājaka (115), śākinī (133), sālimkanda (183), samudraśoṣa (181),[323] segruḍī (183), sītāphala (183),[324] suramāḍa (141), two types of sūraṇa (185: sūraṇa and lohitasūraṇa), surapattrī (184), suraputrī (185), śvetāṅguliphalā (80), tamākhu (103), tejonmantha (16),[325] teraṇā (99), tiktairaṇḍa (90), tiktakaṅkolikā (67), trikāṇḍa (98), several types of tṛṇa (71–72: ikṣudarbhā,[326] gomūtrikā,[327] aśvala, śilpikā,[328] niḥśreṇi,[329] jaraṭi,[330] majjara,[331] mṛgapriya, veṇupattrī, manthānaka,[332] kundaru, caṇika,[333] śūlitṛṇa, lavaṇatṛṇa,[334] paṇyandhaka,[335] asitapattra),[336] tṛṇakeśaraka (64), five types of tulasī (98–99: śvetā, kṛṣṇā, āraṇya-, kṣudrā āraṇya-, sugandhāraṇyatulasī), tuvaraka (98), three types of udumbara (12: udumbara, nadyumbara, kākodumbarikā), two types of upodakī (144 and 175: upodakī[337] and pṛthivyupodakī), uttaraṇī (13), vajrabhṛṅgī (75),[338] two types of vaṃśa (174: vaṃśa and randhravaṃśa), vanaśopā (180), vātakumbhaphala (133), veṇukāśa (139), two types of vetra (175: vetra and bṛhadvetra), two types of vṛntāka (173: vṛntāka and bṛhadvṛntāka), vṛṣāṅka (139), yaṣṭikāśvā (61), and three types of yavānī (16: yavānī, pārasīkayavānī, khurāsānī yavānī).

The pāradaprakaraṇa describes sixty-four rasauṣadhis, used in the bandhana of mercury (480–481).[339]

Special features found in volume two are: verses on karmavipāka are present at the beginning of many chapters; verses of an astrological character are less frequently met with;[340] the use of mantras is not uncommon.[341]

One series of thirteen saṃnipāta fevers is described, together with their treatment: sandhika, antaka, rugdāhaka, cittabhrama, śītāṅga, tandrika, kaṇṭhakubja, karṇaka, bhugnanetra, raktaṣṭhīvin, pralāpaka, jihvaka, and abhinyāsa (42–59);[342] the fevers called hāridraka (60) and mantharajvara or madhuraka (102–103)[343] are also described; the section on vātavyādhi mentions jṛmbhā (401), pralāpa (401), rasājñāna (401), tvakśūnyatā (402), mūtranigraha (421–422), kaṭivāta or -śūla (423), ūrdhvavāta (423–424), and trikaśūla (424–425);[344] bahumūtra is dealt with in the section on prameha (586); the section on udara mentions śothodara (606– 607); the section on aṇḍavṛddhi has also verses on vardhma (622–623) and kuraṇḍaka

(623–624); burns (agnidagdhavraṇa) are dealt with in the section on āgantukavraṇa (660–663); verses on sparśavāta are found in the section on śītapitta (710–711); seven types of śītalā are described in the section on masūrikā (730–732), which has also incorporated the hymn to Śītalā, called śītalāṣṭaka; the section on pradara describes somaroga and mūtrātisāra (833–834); the section on garbhiṇīroga includes recipes aiming at garbhasthirīkaraṇa, i.e., the prevention of miscarriages and immature births (841–842); the section on mūḍhagarbha contains, among other things, abortifacient (garbhapātana; 848) and contraceptive formulae (garbhanivāraṇa; 850); the section on children's diseases describes the disorder called utphullikā and contains, at the end, a portion resembling the Kumāratantra;[345] the last two sections are concerned with snāyukaroga (dracontiasis) and potavidhi.[346]

No particulars are known to me about Viṣṇu Vāsudeva Goḍbole.

NIGHAṆṬUSAMGRAHA,[347] completed in 1893, written by Raghunāthajī Indrajī of Jūnāgaṛh, assisted by Jayakṛṣṇa Indujī. Since the author was generally known under the name of Katobhaṭṭa, this nighaṇṭu is often called Katobhaṭṭanighaṇṭu.[348]

The Nighaṇṭusaṃgraha describes more than 600 medicinal substances and gives their names in ten languages. The work is said to contain a wealth of information, based on both earlier treatises and the author's own experience.

Sources used by Raghunāthajī are: the Bhāvaprakāśanighaṇṭu, Dhanvantarīyanighaṇṭu, Lolimbarāja's Vaidyajīvana, the Madanapālanighaṇṭu, Moreśvara's Vaidyāmṛta, Śivadatta's Śivakośa, the Soḍhalanighaṇṭu, and the Nighaṇṭuratnākara. The descriptions of many plants new to the Indian pharmacopoeia were taken from the Nighaṇṭuratnākara.

The Nighaṇṭusaṃgraha is quoted in the Śāligrāmanighaṇṭubhūṣaṇa of the Bṛhannighaṇṭuratnākara and by P.K. Warrier, V.P.K. Nambiar and C. Ramankutty in their 'Indian medicinal plants' (1994–1996).

Raghunāthajī was the middle one of the three sons of the astrologer Indra who lived in Jūnāgaṛh in Saurāṣṭra; Indra was the eldest son of the astrologer Murāri who resided at Saudāmāpurī, the modern Porebunder in Saurāṣṭra.

Raghunātha, a Praśnorā Nāgara brāhmaṇa by caste,[349] was a pupil of the Praśnorā brāhmaṇa Viṭṭhalabhaṭṭa of Jāmnagar. The well-known Bhagavanlāl Indrajī, who was an expert in old Indian scripts, was Raghunātha's elder brother.[350]

PARIBHĀṢĀ by Gaṅgādhara.[351]

PARYĀYAMUKTĀVALĪ, written by Gopīmohanakavirāja.[352] This work is a small treatise which enumerates the names of a number of medicinal substances, divided into twenty-one groups (varga): karpūrādisugandhivarga, jīrakādimadhyagandhavarga, karkaṭākhyādihīnagandhavarga, ahīphenādisārajavarga, māṇikyādiratnavarga, dhātūpadhātuvarga, drākṣādimadhuravarga, dāḍimādyamlavarga, jīvantyādyuttamaśākavarga, pāṭhāditiktaśākavarga, jātyādipuṣpavarga, kuṣmāṇḍādilatāphalavarga, kaśerukādikandavarga, nyagrodhādimahāvṛkṣavarga, nandīvṛkṣādihrasvavṛkṣagaṇa, dūrvādihrasvavṛkṣagaṇa, tāmbūlādilatāvṛkṣagaṇa, hareṇvādiśimbidhānyaśūkadhānyavarga,

śyāmākādityṇadhānyavarga, bhaktādikṛtānnavarga, and pānīyavarga.

A similar arrangement is found in Hemacandra's Nighaṇṭuśeṣa and Haricaraṇasena's Paryāyamuktāvalī.

Sources are not mentioned, but the author refers in the introductory verses to a koṣa by Mādhavakara.

Interesting substances mentioned are: aguru and kṛṣṇāguru (2); ahīphena (13); four types of candana (śrīkhaṇḍa, śvetacandana, haricandana, kālīyaka; 2), to which raktacandana (12) and kucandana (13) have to be added; jalakandā kadalī (42); jayapāla (47); two types of kalambī (kalambī and kṛṣṇapallavā; 29); kuliñja (8); kumaricaka (30); madhuniṣpāva (55); mahākadamba (36); pītarohiṇī (9);[353] śakrāśana (31),[354] sarpakaṅkālikā (54); śirāmalaka (26).

PATHYĀPATHYA by Gaṅgādhara.[355]
PRAYOGACANDRODAYA by Gaṅgādhara.[356]

RĀMACANDRIKĀ, a compilation on the treatment of various diseases, probably written by Rāmacandra, son of Kāśīnātha. The subject of karmavipāka is also dealt with, based on works like the Brahmagītā,[357] Brahmapurāṇa, Maheśvaratantra,[358] Padmapurāṇa, etc. The MS of this treatise may date from the nineteenth century; the compilation itself is probably not much earlier.[359]

ROGAPARĪKṢĀ, compiled by Gaṇeśa Harī Śevaḍe.[360]

(SADVAIDYA)BHĀVĀVALĪ by Jagannāthagupta, son of Śivanātha: biographies of physicians in Senahāṭī.[361]

(SADVAIDYA)KULACANDRIKĀ by Dvārakānātha Dāsa Gupta: a work on the Vaidya families of Bengal that forms a supplement to Rāmakānta Dāsa's Sadvaidyakulapañjikā.[362]

SADVAIDYAKULAPAÑJIKĀ, a genealogy of the Vaidya caste, written in verse, by Kavikaṇṭhahāra Rāmakānta Dāsa,[363] who was the teacher of Gaṅgādhara Kavirāja.[364]

ŚĀLIGRĀMAUṢADHAŚABDASĀGARA[365] or Āyurvedīya Auṣadhīkoṣa by Śāligrāma:[366] a medical lexicon, arranged according to the order of the Sanskrit alphabet, with short explanations in Sanskrit and with Hindī synonyms.

ŚAṂKARĀKHYA,[367] Śaṃkaraśata,[368] or Vaidyakasāraśaṃkarākhya,[369] a work by an author called Rāma.

The treatise[370] consists of 171 verses, arranged in six chapters. Chapter one (1–39), which contains a table of contents (2), deals with the messenger (dūta; 3–4), astrology connected with medicine (5–14), curability and incurability (15–16), the examination of the pulse and the urine (18–22), the symptoms of the excited doṣas (23–30), and types of patients that should or should not be treated (31–39). Chapter two (40–50) is

about general therapeutic measures (sneha, dāgha, vamana, recana, taila, ghṛta, nasya). Chapter three (51–95) and four (96–105) are chiefly concerned with the symptoms and treatment of fever and diarrhoea. Chapter five (106–157) gives prescriptions for a variety of diseases. Chapter six (158–171) contains prescriptions against some diseases and a few verses on inauspicious astrological yogas.

Rāma quotes in his work the Śārṅgadharasaṃhitā (104–105).[371]

A disease called kūrma is described (161–165).

The author mentions his name as Rāma (1), without giving any more information.

The work was completed in 1896/97.[372]

ŚARABHENDRAVAIDYARATNĀVALĪ. This work, in Marāṭhī, consists of a collection of recipes, made on the request of or written by one of the Maratha kings of Tanjore, Sarabhoji (or Serfoji) II (A.D. 1798–1832),[373] who established a medical institution, called Dhanvantari Mahāl, where both English and Indian physicians harmoniously worked together.[374] A Tamiḻ version of this treatise has been published.[375] The same king ordered a very large collection of tested recipes to be made.[376]

SĀRAKAUMUDĪ, compiled by Vasantakumāra Rāya.[377]

SIDDHABHEṢAJAMAṆIMĀLĀ,[378] composed by Kṛṣṇarāma.

The treatise consists of 1,864 verses in various metres,[379] composed by the author. It is divided into five sections (gucchaka). Section one (upodghāta; 22 verses) contains the genealogy of the author. Section two (harītakyādivarṇana; 316 verses) consists of a nighaṇṭu, which enumerates the properties of medicinal substances, articles of food, and prepared dishes. Section three (153 verses) deals with the preservation of health (svāsthyasaṃrakṣaṇaprakaraṇa; 1–56), the six tastes and their combinations (rasādibhedaprakaraṇa; 57–64), prognostics (dūtādiprakaraṇa; 65–97), wonderful tales arousing the interest (kautuka, camatkāra) of patients and distracting them (muktakasaṃgraha; 98–127), and fireworks (khadhūpavarṇana; 128–153).[380] Section four (1,180 verses) is exclusively devoted to the treatment of diseases.[381] Section five (193 verses) is concerned with iatrochemistry (rasādiprakaraṇa) and aphrodisiacs (vājīkaraṇaprakaraṇa).

The prescriptions in section four are of both an āyurvedic and iatrochemical character. The types of pharmaceutical preparation called śārkara[382] and arka[383] are not uncommon. Magical and religious ways of treatment are also met with.[384]

The names of relatives, colleagues and pupils who transmitted particular formulae to the author are often explicitly mentioned. These names are: Ādityarāma (4.435 and 1029),[385] Āsāmayogin (4.226),[386] Bālamukunda (4.997),[387] Chagana (4.170),[388] Cimana (4.916), Dāmodara (4.692),[389] Ghanaśyāma (4.471), Jīvanātha (4.1116),[390] Jugaladāsa (4.339), Karuṇāśaṃkara (4.1166),[391] Mahādeva (4.437),[392] Raghunātha (4.767), Sadānanda (4.357),[393] Śambhudatta Sārasvata (5.52–53),[394] Śyāma (4.186),[395] and Śyāmarāma (4.514). Sometimes Kṛṣṇarāma refers to his grandfather (4.11 and 283) or his guru (4.338, 663, 746). In other instances he does not reveal the name of the person who passed down a recipe (4.796–797 and 897).

A few sources only are mentioned by name: the Bṛhattrayī (3.94; 4.4) and Laghutrayī (3.94), the Jayapuramelakakutukakāvya (3.136),[396] and the Sandhānapaddhati (2.220). The sauśrutāḥ are referred to once (4.732).

The Siddhabheṣajamaṇimālā is quoted in the Bheṣajasaṃhitā, the commentary on the Siddhabhaiṣajyamañjūṣā, Devasiṃha Viṭṭhal's Bṛhadāsavāriṣṭasaṃgraha, Gulrājśarmamiśra's commentary on the Āyurvedaprakāśa, Gulrājśarmamiśra's Siddhaprayogalatikā[397] and Viśikhānupraveśavijñāna, Hariprapanna's Rasayogasāgara, Hariśaraṇānanda's Kūpīpakvarasanirmāṇavijñāna, and Yādavajī Trikamjī Ācārya's Rasāmṛta and Siddhayogasaṃgraha.

Kṛṣṇarāma's views[398] on the actions of drugs have been influenced by Keśava's Siddhamantra; their effect on the doṣas is considered their most basic characteristic (2.1–17). The arrangement of the diseases in section four is for the greater part in agreement with the Mādhavanidāna. The following chapter-headings are absent: krimi, tṛṣṇā, pānātyaya, vātarakta, ūrustambha, āmavāta, hṛdroga, medoroga, ślīpada, vidradhi, śūkadoṣa, amlapitta, visarpa, visphoṭa, and masūrikā. A chapter on snāyukaroga (4.882–894) has been added; vardhma is dealt with in the chapter on vṛddhi; phiraṅga is mentioned in the chapter on vātavyādhi (4.479).

Noteworthy names of diseases are: mauktikajvara (4.20 and 21),[399] gaurjarī (4.319),[400] śūnyavāta (4.463–466),[401] nalabandhasamīra (4.607),[402] saujāka (4.731, 772, 781, 785, 798, 807, 810, 812, 815),[403] śūkadoṣa (4.914),[404] pṛṣṭhavisphoṭa (4.925),[405] challaka (4.935),[406] cepya (4.998),[407] utphullikā (2.298; 4.1137, 1140, 1143),[408] and darbha (4.1145).[409]

A rare type of pharmaceutical preparation is called phalāspā (4.51–54).[410] New substances prescribed by the author are ice (kṛtrima hima; 4.207 and 1070) and soap (sābu; 4.219, 616 and 926).

Noteworthy medicinal substances are: akīka (2.303),[411] amarūdā (2.155),[412] ambara (2.113),[413] attara (2.149),[414] bābūnā (4.52),[415] banapsā (2.55),[416] cirapoṭikā (2.56),[417] cobacīnī (4.477; 5.151), dhūmavallī (4.373),[418] dvīpāntarīya cūkaka (4.227),[419] dvīpāntarīyavaṭa (4.620),[420] dvīpāntarīyavṛkṣāmla (4.400 and 424),[421] elacīphala (2.157),[422] gambhīrī (4.450),[423] gaṇḍagātra (2.156),[424] gañjā (4.914), ghṛtāśman (4.943),[425] gilaramanī (4.985),[426] gucchaughapuṣpa (2.131),[427] gundaṇī (4.313),[428] haṃsarāja (4.830),[429] īśvarabola (2.41),[430] jaṅgāla (4.204 and 684),[431] jarīṣka (4.24),[432] jāvintrikā (2.122),[433] jīrāvana (4.52),[434] jūphikā (4.322 and 329),[435] kabābacīnī (2.124),[436] kaharavā (4.782),[437] kakeraka (4.713),[438] kalā (4.14),[439] kālāñjanī (4.581),[440] kālāñjanikā (2.64),[441] kalasora (4.292, 363, 787, 936),[442] kalvañjī (4.262),[443] kalvañjikā (2.40),[444] kāmālikā (4.419),[445] kaselikā (2.106),[446] kāsinī (2.45),[447] katīragundraka (4.779),[448] kaṭola (4.905),[449] kattha(ka) (4.159, 826),[450] kaṭṭīragundra (2.134),[451] kaukkuramārkava (4.240),[452] kṛṣṇabīja (4.599),[453] kṛṣṇagundra (4.567 and 1091),[454] lohabāṇa (2.132; 4.435; 5.105),[455] mamīra (2.66),[456] mañju (4.769, 977, 980),[457] marālapadikā (2.82),[458] mastakīgundra (2.134),[459] mṛtāśman (4.693),[460] nara (4.557 and 722),[461] paṭagrāhitṛṇa (4.236),[462] pittakāriṇī (2.38),[463] pradaradāriṇī (4.1079–1081),[464] pradīna (4.423),[465] rādhāgālī (4.493),[466] rājaśaṇikā (4.1069),[467] raṅgavarata (4.980 and 985),[468] ratnajyotis (4.620),[469] revatī (4.646 and 1107),[470] revatikā (2.62),[471] sābbūdāna (2.179),[472] sābu (4.219 and

926),[473] sābuna (4.616),[474] sahasradru (4.812),[475] sahasrapuṣpa (4.1173),[476] sahasrasuma (4.229),[477] sālima (2.104; 4.52 and 779),[478] sanāmakī (2.63),[479] śarkarākanda (4.493),[480] śatamalla (2.294),[481] śavagrāvan (2.299),[482] śavāśman (4.205 and 825),[483] śavopala (4.713),[484] sauraka (4.536 and 790),[485] soraka (4.533),[486] suma (4.343, 638, 701),[487] sumakanda (4.14),[488] svādusurañjāna (4.352),[489] tarbūja (2.153),[490] tejo'mbu (4.368),[491] todari (2.105),[492] unnābha (4.317),[493] usabbā (4.477),[494] vajradantī (4. 222),[495] vajrakadhānya (4.623 and 676),[496] vīkā (4.698 and 1067),[497] viṣakharpara (4.457),[498] and viṣanārikela (4.1129).[499]

The name of the author appears at several places of his work as Kṛṣṇa (1.5; 5.189), Kṛṣṇakavi (1.22; 4.1180; 5.193), Kṛṣṇarāma (4.2), Kṛṣṇākhya Vyāsa (4.4), and Kṛṣṇaśarman (5.190). He was born in 1848/49 and died in 1897/98. His teachers were Jīvanātha, Candanadāsa, and his father (5.190). The Siddhabheṣajamaṇimālā was written for Mādhava, ruler of Jayapura (1.13; 5.189), who descended from Rāma, Jayasiṃhavarman, and Māna (1.6–9).

Kṛṣṇarāma was a prolific writer,[500] who wrote the following fourteen works: Āryālaṃkāraśataka, Chandogaṇita, Gappasamādhāna, Gopālagītā, Holāmahotsava, Jayapuramelakakutuka, Jayapuravilāsa, Kāśīnāthastava, Mādhavapāṇigrahotsava, Muktakamuktāvalī, Palāṇḍurājaśataka, Sāraśataka, Siddhabheṣajamaṇimālā, and Vidvadvaidyataraṅgiṇī.[501]

Kṛṣṇarāma's father was Kundana (1.4) or Jīvanarāma, who lived from 1828/29 to 1880/81; he was the author of a work on Yūnānī medicine, called Hikamanmandārabandha (1.4).[502] Kṛṣṇarāma's grandfather was Lallurāma (1.3) or Viṣṇurāma, who lived from 1798/99 to 1873/74.[503] His great-grandfather was Lakṣmīrāma, who was born in Ahmedābād, but became the court physician of Pratāpasiṃha of Jayapura (1778–1803).[504]

The Siddhabheṣajamaṇimālā was completed in 1896/97 (5.192).[505]

A useful Sanskrit commentary (ṭippaṇikā) on the Siddhabheṣajamaṇimālā was written by Lakṣmīrāma (1873–1939), one of Kṛṣṇarāma's pupils.[506]

Sources, referred to or quoted by name by Lakṣmīrāma, are:[507] Amara (2.181, 222; 3.34; 4.38, 212, 671), Amaraṭīkā (2.116), Aruṇa (2.39), Aruṇadatta (2.170), Aṣṭāṅgahṛdaya (3.75), Āyurvedarasāyana (2.281),[508] Bhaṭṭi (2.315; 3.128),[509] Bopadeva (2.281),[510] Brahmavaivartapurāṇa (2.263), Candrikākāra (2.257), Caraka (2.257, 281, 287; 3.2, 68, 98; 4.1; 5.92), Cintāmaṇi (2.263), Darpaṇa (3.129), Dhanapati (2.178, 242), Hemādri (2.257), Holāmahotsava (2.148),[511] Jayapuravilāsa (4.1116),[512] Kośa (2.78, 97, 247; 4.728; 5.99, 131), Kumārasaṃbhava (2.245), Mādhava (2.2, 230),[513] Māgha (2.23, 132), Maheśvara (2.81), Manthānabhairava (2.1), Mantrakalpadruma (3.103),[514] Merutantra (2.179), Muktakamuktāvalī (2.148; 3.36),[515] Nāḍīprakāśa (3.71), Naiṣadhīya (2.23), Nighaṇṭu (2.192; 4.914; 5.32), Nighaṇṭusāra (2.148, 294), Nighaṇṭuviśeṣa (2.113), Palāṇḍurājaśataka (2.240, 243),[516] Pañcatattvaprakāśa (3.145),[517] Patākāgrantha (3.62),[518] Rabhasa (2.28), Raghuvaṃśa (5.30), Rājanighaṇṭu (2.78), Rasaratnasamuccaya (5.2, 19), Rasaśāstra (5.7, 11), Ratnamālā (2.132), Rugviniścaya (4.133, 882), Śabdārthacintāmaṇi (2.97, 211, 296; 3.128), Siddhamantraprakāśa (2.17), Siddhasāra (2.204), Suśruta (2.1, 257, 281; 3.2, 12, 38; 5.92), Vāgbhaṭa (2.27, 201, 249; 3.15, 79; 4.9, 133, 134), Vāpyacandra (2.243), Vaśiṣṭha (2.169), Vidagdhamukhamaṇḍana (4.16, 49),[519] Vijñāneśvarabhaṭṭāraka (2.211),[520] Vṛnda (4.882), Yājñavalkya (3.20), Yāvana Nighaṇṭuviśeṣa (2.113), Yogaratnākara (2.109), and Yogasudhānidhi (2.298).[521]

Lakṣmīrāma is mentioned in Gulrājśarmamiśra's Siddhaprayogalatikā.[522]

A Hindī commentary, called Maṇicchaṭā, on sections four and five of the Bheṣajamaṇimālā, was written by Devendraprasādabhaṭṭa, a great-grandson of Kṛṣṇarāma.[523]

SUKHASĀDHAKA by Parameśvara.[524] This work is said to be based on the Hṛdayapriya by the same author.[525]

SŪPAŚĀSTRA, a work on the culinary art, by Bhīmasena.[526]

TĀMBŪLAMAÑJARĪ,[527] an anonymous collection of verses on betel chewing,[528] compiled from many sources.

The treatise describes the beneficial medicinal effects of betel (tāmbūla) leaves (1–2), the thirteen qualities of tāmbūla (3),[529] when to chew betel (4–6), the proportions of the ingredients of a quid (7–11), the bad effects when the proper ratios are not observed (12–18), rules for chewing (19–23), the deities presiding over the various parts of a betel leaf (24–25), rules for handling a quid (26–31), the number of leaves to be presented to particular classes of persons or relatives (32–39),[530] rules (40–52), the ingredients of a chew (53–59), rules (60–62), the beneficial effects of chewing (63–64), classes of persons who should avoid chewing betel (65–72), the ingredients again (73–75), rules (76–78), and the properties of the leaves of the betel plant grown in various countries (79–88).[531]

The remaining part of the treatise is devoted to the other ingredients and diverse substances that can be added to a quid: the betel nut (pūga; 95–113), lime (cūrṇa; 114–116), tobacco (tamākhu; 117), khadirasāra (118–124), kastūrī (125–142), latākastūrī (143), gold foil (suvarṇadala; 144– 145), silver foil (raupyadala; 146–147), almonds (vātāma; 148–149), kaṅkola (150–152), kuṅkuma (153–161), mace (jātīpattrī; 162–165), nutmeg (jātīphala; 166–169), small cardamoms (sūkṣmailā; 170–174), cloves (lavaṅga; 175–178), ginger (śuṇṭhī and ārdraka; 179–180), sandal (candana; 181–188), coconut (nārikela; 189–194), tvac (195–200), and camphor (karpūra; 201–223).

Glosses are found after verses 41, 113, 154, 200 and 219.

One verse (57) is in a regional language.

Sources quoted are: Acyuta (55),[532] Amaramālā (gloss ad 113),[533] Bharadvāja (7), Cūḍāmaṇi (50–53), Dhanvantari (3–5),[534] Dravyaguṇanighaṇṭu (117), Hemādri (gloss ad 41), Rājanighaṇṭu (9–11), Ratnamālā (93), Ratnamālāmañjarī (115),[535] Trimallaṭīkā (8; gloss ad 219),[536] Vaidyāmṛta (145),[537] Vaidyaratna (60–62; 94), Vopadeva (54), Yogamālā (25), and Yogaratna (144; 147).

The sources of numerous verses are not specified, but many stanzas are from the Aṣṭāṅgasaṃgraha,[538] Bṛhatsaṃhitā,[539] Dhanvantarīyanighaṇṭu,[540] Rājanighaṇṭu,[541]

and Suśrutasaṃhitā.[542]

The quotation from Acyutarāya Moḍak's Saubhāgyakalpadruma[543] points to the nineteenth century as the period of compilation of the treatise.

VAIDYABHŪṢAṆĀ by Bhīmasena.[544]

VAIDYADARPAṆA by Prāṇanātha, son of Kalyāṇabhaṭṭa. This work was composed in 1827.[545] It is quoted in Hariprapanna's Rasayogasāgara.

VAIDYAHITOPADEŚA, written by Raghunāthaprasāda.[546]

VAIDYAKAŚABDASINDHU,[547] by Umeśacandragupta,[548] a medical lexicon, arranged according to the order of the Sanskrit alphabet. It refers to a large number of sources.

Umeśa and the Vaidyakaśabdasindhu are quoted in Hazārīlāl Sukul's commentary on the Rasaratnasamuccaya. The Vaidyakaśabdasindhu is quoted in Somadevaśarman's commentary on the Āyurvedaprakāśa.

VAIDYAMUKTĀVALĪ, composed by Mauktika (Motīrāma), son of Māṇikyacandra and pupil of Rāmanātha. The work is provided with a commentary. Sources quoted are the Bhāvaprakāśa, Hikmatprakāśa and Nāḍīprakāśa.[549]

This treatise probably dates from the nineteenth century since the Hikmatprakāśa was completed in 1773/74 and the MS of the Vaidyamuktāvalī dates from 1851/52.[550]

VAIDYATATTVARATNĀKARA, compiled by Maganalāla Viśvanātha Vaidya.[551]
VAIDYATATTVAVINIŚCAYA by Gaṅgādhara.[552]
VIDVANMANORAÑJANĪ, compiled by Padmalocana Nyāyaratna Bhaṭṭācārya.[553]

VĪRAHĀRALATIKĀ by Sāhibrāma, son of Dillārāma. The author wrote in 1845, at the request of Raṇavīrasiṃha, the Vīrahāralatikā as a commentary on the Vīravaidyaratnahāra. The latter work was translated from the Arabic either by Sāhibrāma himself or by Śāligrāma.

Sāhibrāma was a native of Kaśmīr and died in 1872. His other works are: Lakṣyavedhana, Nītikalpalatā, a commentary on the Pañcasāyaka, and Vīraratnaśekharaśikhā.[554]

VIṢAHARATANTRA by Gaṇeśa, son of Sabhācandra and a resident of Jammū. This work, a toxicological treatise, was completed in 1845, at the behest of king Raṇavīra Siṃha.[555]

Chapter 5
Twentieth-century authors and works

AGADATANTRAPRAKĀŚA, compiled by Gadādhara Vaidya Śarman.[1]

AJĪRṆATIMIRABHĀSKARA[2] by Hakīm Caube Kyākhūbadāsa.[3] This work, a monograph on indigestion (ajīrṇa), is written partly in Sanskrit verse, partly in Hindī prose. It is divided into four chapters. Chapter one (16 verses) describes the disorders of the digestive fire, bhasmaka included. Chapter two (12 verses) is about the six types of ajīrṇa, as distinguished by Mādhava; the characteristics of the pulse in disorders of the digestive fire are added. Chapter three (38 verses) describes what is beneficial (pathya) and harmful (apathya) in cases of ajīrṇa; it is, apart from some general therapeutic measures, especially concerned with a series of specific remedies against ajīrṇa caused by particular substances.[4] Chapters four and five contain recipes,[5] mostly (chapter four) or entirely (chapter five) in Hindī.[6]

The author was a son of the physician Caturvedaśaṃkaralāla,[7] and lived, like his father, in Mathurā.[8]

ANUGRAHAMĪMĀṂSĀ[9] by Vaṭṭakkeppāṭu Nārāyaṇan Nāyar (1878–1959).[10] This work, in six sections, deals with bacteriology and infectious diseases from an āyurvedic point of view. The author was of the opinion that the ancient Indian physicians were already acquainted with discoveries made with the aid of the microscope.

ANUPĀNADARPAṆA[11] by Jñārasarāmaśarman, a monograph on anupāna in 550 verses, arranged in nine chapters (pramoda).

Chapter one is on the vaidya, chapter two on āyurveda and its eight aṅgas, chapter three on weights and measures, and on the examination of the pulse. Chapter four (84 verses) is devoted to the anupānas to be prescribed along with various simple or compound drugs of an āyurvedic type, and chapter five (165 verses) to anupānas that have to be used in combination with rasauṣadhas. Chapter six (63 verses) deals with the preparation of a number of compound drugs (mostly rasayogas), their actions, and their application in various diseases. Chapter seven (91 verses) is on alchemical subjects and describes the dhātus, upadhātus, ratnas, uparatnas, viṣas, and upaviṣas, together with their purification (śodhana) and killing (māraṇa). Chapter eight (55 verses) is about diverse types of bhasman, and chapter nine (28 verses) about disorders (doṣa) due to the ingestion of inorganic substances, and the alleviation (śānti) of these disorders.

Sources quoted are: *Bhaiṣajyasārāmṛtasaṃhitā* (5.18), *Bhāvaprakāśa* (3.7; 7.9, 26, etc.), *Gaurikañcālikātantra* (4.68), *granthāntara* (4.84; 5.5, 15–16, 45, 52, 66,

etc.), *Madanapālanighaṇṭu* (4.69–70; 8.42), *Rasendrapurāṇa* (5.97–98, 104, 132, 165, etc.), *Rasendrasārasaṃgraha* (5.3, 21–22; 6.24–25, etc.), *Śārṅgadharasaṃhitā* (3.5; 4.55, 58, 74, 76–77, etc.), Suśruta (1.2–4, 6, 9; 2.3, etc.), Vāgbhaṭa (3.16; 4.50, etc.), (Lolimbarāja's) *Vaidyajīvana* (3.17; 4.51, 72–73, etc.), and (Raghunātha's) *Vaidyavilāsa* (5.136).

The *Anupānadarpaṇa* is mentioned in Jñārasarāma's version of the *Amṛtasāgara* and was therefore written earlier than the latter work.

Jñārasarāma also wrote an *Anupānaratnākara*.

ANUPĀNAMAÑJARĪ, compiled by Puvvāḍa Sūryanārāyaṇa Rāvu.[12]
ANUPĀNARATNĀKARA by Jñārasarāma Śarman.[13]

ĀROGYĀMṚTABINDU or *Śītalāparihāra* or *Śītalārogāpahāra* by Jīyālāl, a treatise on śītalā (smallpox) and its treatment, written in Hindī prose, interspersed with Sanskrit quotations.[14]

The work is divided into three parts: (1) ḍāktarīnidān and vaccination (1–99), (2) yūnāniyoṃkā siddhānt (99–104), (3) āyurvedokt śītalārog (104–147), followed by a nighaṇṭu or auṣadhisvarūpavarṇana (147–173), a small section on substitutes (pratinidhi) (173–174), and information on the author (174–176).

Part one deals with the views of western medicine on smallpox and with vaccination, part two with the views of Islamic medicine. Part three discusses the āyurvedic views on masūrikā and śītalā.

Authors and works quoted in the first half of part three are: *Brahmasaṃhitā* (3.1–3),[15] Bharadvāja (3.4–10), Bheḍa (3.11–15), *Mādhavanidāna* (3.16–17), Durgabhaṭṭa (3.18–20), Suśruta (3.21), Vaṅgasena (3.22–26), Śārṅgadhara (3.27–29), and *Bhāvaprakāśa* (3.65–74). The second half quotes from the *Haṃsarājanidāna* (3.2) and the *Kāśīkhaṇḍa* of the *Skandapurāṇa* (3.3–14).[16]

The Hindī prose of the first half of part three refers to the following works: *Bhāvaprakāśa* (3.22–26 and 29), *Brahmasaṃhitā* (3.1–3), *Mādhavanidāna* (3.22–26), and *Suśrutasaṃhitā* (3.1 and 22–26). The Hindī prose of the second half refers to: *Arkaprakāśa* (3.5), Bheḍa (3.9), *Brahmasaṃhitā* (3.1–2), *Cakradatta* (3.2), Caraka (3.1–2), *Kāmadhenupaddhati* (3.1–2),[17] *Kanakavilāsa* (3.6 and 8), *Kāśīkhaṇḍa* (3.1–2), *Manoramā* (3.1–2), Suśruta (3.5), *Ṭoḍarānanda* (3.1–2), *Vaidyamahendrī* (3.1–2),[18] *Vaidyasarvasva* (3.1–2), *Vaidyarahasya* (3.3), Vaṅgasena (3.3, 7, 10, 12), and *Yogacintāmaṇi* (3.3).

The author, a Jain, of Agravāla vaṃśa, was a son of Caudharī Sumerucand and a grandson of Caudharī Māṇikcand. He was born in Pharrukhnagar in 1852.

ĀROGYASINDHU by Raṅganātha Sakhārāma Lāḷe, also called *Śukrasaṃhitā* and *Kāmaśāstra*, a work on sexual disorders.[19]

ĀSAVĀRIṢṬA by Satyadeva Vidyālaṃkāra.[20]
ĀSAVĀRIṢṬASAṂGRAHA by Jagadīśaprasāda Garga.[21]
ĀSAVĀRIṢṬASAṂGRAHA by *Pakṣadhara Jhā*.[22]

ĀSAVARIṢṬAYOGASAṂGRAHA by Vayaskara N.S. Mooss,[23] a collection of 122 recipes of āsavas and ariṣṭas in Sanskrit, accompanied by a commentary in Malayāḷam.

ĀSAVAVIJÑĀNA by Hariśaṇānanda.[24]

AṢṬĀṄGAŚĀRĪRA by Vaidya Ratnam P.S. Varier (Vāriyar).[25] This work is an elaborate textbook on modern anatomy and physiology in 2,045 Sanskrit verses, arranged in eight chapters. A large number of new terms are found in it, which are explained in the author's commentary, called *Gūḍhārthabodhinī*. This commentary also gives the English equivalents of the newly introduced Sanskrit terms.

The author (1869–1944)[26] was the founder of the Ārogyavaidyaśālā (Kottakal, Kerala).[27] He also wrote a *Bṛhacchārīra*.

AUṢADHAKRIYĀ, compiled by Śaṃkaralāla Hariśaṃkara.[28]

AUṢADHANIGHAṆṬU, a Sanskrit–Malayāḷam dictionary of nearly 30,000 names of drugs and medicinal plants, arranged in the order of the Sanskrit alphabet, compiled by Kāṇippayyūr Saṅkaran Nampūtirippāṭu in the beginning of the twentieth century. The author issued from a family of astrologers attached to the court of the king of Cochin.[29]

AUṢADHIKRIYĀ, a compilation of prescriptions.[30]

ĀYURVEDACANDRIKĀ or *Āyurvedīyaśabdārthanirṇāyako Bṛhadabhidhānagranthaḥ*, compiled by Haralāla Gupta, a dictionary of Sanskrit words with Bengali equivalents.[31]

ĀYURVEDACINTĀMAṆI, compiled by Baladevaprasāda Miśra, son of Sukhānandamiśra.[32]

This work is a nighaṇṭu, enumerating synonyms and properties of medicinal substances, compiled from the *Carakasaṃhitā*, *Suśrutasaṃhita*, the works of Vāgbhaṭa, the *Bhāvaprakāśa*, *Rājanighaṇṭu*, *Atrisaṃhitā*, *Rājavallabha*, *Vaidyakanighaṇṭu*, and other works.[33] It is divided into twenty-two vargas and describes 775 items. Almost all the substances are known from other treatises under the same or other names. Noteworthy among them are: ātṛpya (6.17),[34] bahunetra (6.20),[35] drauṇeya lavaṇa (1.96), sunepālī (6.48),[36] surapriya (2.40),[37] and śyāmaparṇī (19.13).[38]

ĀYURVEDADARŚANA by Priyavrat Śarmā.[39] This work, in sūtra style, accompanied by a commentary in prose, deals with the philosophy of āyurveda.

Chapter one (prameyapāda; 31 sūtras): the definitions of āyus and āyurveda; prakṛti is the object of āyurveda; āyurveda is divided into sixteen branches;[40] sattva, ātman and śarīra are the subjects of āyurveda; sattva consists of antaḥkaraṇa, manas, buddhi and ahaṃkāra, and is characterized by prāṇa; the characteristics of the ātman; the characteristics of the body (śarīra); puruṣa is the combination of ātman and body; the five bhāvavikāras (stages of transformation) are: hetu, utpatti, vṛddhi, upaplava and viyoga;

the six accessory (tantropayogin) bhāvas are: dravya, guṇa, karman, samavāya, sāmānya, and viśeṣa; the definitions of these six accessory bhāvas; the five mahābhūtas; their specific properties; all substances and the body are composed of the five mahābhūtas; the functions of doṣas, dhātus and malas are based on the mahābhūtas; health and disease depend on the doṣas, which are of the nature of prāṇa; the natural functions of the three doṣas, vāta, pitta and kapha, are vikṣepa, ādāna and visarga; the dhātus, directed inwards (antarmukha), are supportive and nourishing; the seven dhātus; ojas is the essence of all the dhātus and the seat of prāṇa; the malas are devoid of essences (niḥsāra), directed outwards (bahirmukha), and the causes of painful conditions (ābādha); agni performs pāka and is the causative factor in ādāna; among the bhūtvagnis, dhātvagnis and annāgni, the first group is foremost; the constituents called srotas are pathways for the rasa, etc., and are of the nature of ākāśa; prakṛti consists of the predominance of a doṣa, present from birth onwards.

Chapter two (pramāṇapāda; 8 sūtras): the definition of pramāṇa; the four pramāṇas are āptopadeśa, pratyakṣa, anumāna and yukti; definitions of these pramāṇas; jñāna (knowledge), parīkṣā (examination) and prayoga (application) are the elements of medical procedures; adhyayana (study), adhyāpana (teaching) and tadvidyasaṃbhāṣā (discussion with experts) are means for acquiring knowledge.

Chapter three (prakṛtipāda; 11 sūtras): prakṛti is the state of equilibrium (sāmya) and the source of vikṛti; the evolution of the universe (sarga) begins with avyakta and ends with the mahābhūtas; bondage (bandha) arises from saṃyoga, final liberation (mokṣa) from viyoga; the definition of prakṛti or svāsthya (health); the fourfold contact (yoga) is the cause of happiness and suffering; the foremost object (of medicine) is the protection of health in the healthy; this aim is reached by observation of the prescriptions; the rules concerning the maintenance of health (svasthavṛtta) relate to diet (āhāra), behaviour (ācāra) and activities (ceṣṭā); food, sleep and chastity are the secondary supports (upastambha) of health; those desiring longevity should have recourse to rasāyana; those desirous of progeny should have recourse to aphrodisiacs (vājīkaraṇa).

Chapter four (vikṛtipāda; 13 sūtras): a disorder (vikṛti) is (essentially) a state of disequilibrium (vaiṣamya); the material cause (upādāna) of vikṛti consists of the doṣas, the instrumental cause (nimitta) is formed by the aetiological factors; causes of disorders are asātmyendriyārthasaṃyoga, prajñāparādha and pariṇāma; the stages of therapeutic intervention (kriyākāla) are six in number; a patient should be examined by means of the five senses and interrogation; knowledge about a disease is acquired by means of the nidānapañcaka; drugs should be examined (before use); therapy is the restoration of prakṛti; treatment is like a manual support (hastālamba); therapy is of three types; the attitude of a physician is fourfold; therapy consists of four limbs; a physician should be learned, experienced, pure and benevolent.

Authorities and works quoted or referred to in the commentary are: *Amarakoṣa* (1.6), *Bhagavadgītā* (3.1), *Bhāgavata* (3.10), *Bhāvaprakāśa* (1.19), *Cakradatta* (3.10), Cakrapāṇi, Candraṭa's commentary on the *Cikitsākalikā* (3.4), Caraka, Ḍalhaṇa (1.2, 5, 23, 25, 29; 3.4), Gaṅgādhara's *Jalpakalpataru* (2.6), *Gītā* (1.23; 2.6; 3.3, 4), Īśvarakṛṣṇa (3.2), *Kaṭhopaniṣad* (1.6), *Madhukośa* (4.6), *Muṇḍakopaniṣad* (3.6), *Nyāya* (1.5; 2.6), *Nyāyasūtra* (1.7; 2.2, 5; 3.2), *Praśnopaniṣad* (1.1), *Sāṃkhya* (3.2), *Sāṃkhyakārikā* (1.6), Śāntarakṣita (2.6), Śārṅgadhara (1.1 and 27; 4.5), *Sarvadarśanasaṃgraha* (3.3), *Siddhāntanidāna* (4.6), *Ṣoḍaśāṅgahṛdaya* (1.4), Suśruta, *Śvetāśvataropaniṣad* (3.2), *Tattvasaṃgraha* (2.6), *Vāgbhaṭa*, *Vaiśeṣika*, Vijayarakṣita (1.22; 4.2 and 6), *Vṛddhavāgbhaṭa* (1.29; 4.7), Yāska's *Nirukta* (1.10), *Yogaratnākara* (4.5), and Yogīndranātha's *Carakopaskāra* (2.6).

ĀYURVEDADARŚANA by Nārāyaṇadatta Tripāṭhī.[41] This work, written in 1,233 prose statements in sūtra style, arranged in sixteen chapters, and accompanied by an elaborate Sanskrit auto-commentary, called *Subodhinī*, is mainly concerned with the basic principles of āyurveda and their philosophical foundations; it also deals with anatomy, pathology, the general principles of treatment, and the processes (saṃskāra) to which mercury is subjected before being suitable to be administered as a medicine. The text and its commentary quote from numerous medical authorities, philosophical treatises, kāvyas, Purāṇas, etc. The author repeatedly advances his own views after referring to those of earlier authorities.[42]

ĀYURVEDĀDARŚASAṂGRAHA by Dāmodar Śarmā Gauṛ.[43]
ĀYURVEDAPARIBHĀṢĀ, compiled by Paṇḍit D. Gopalacharlu.[44]
ĀYURVEDARATNAMĀLĀ, compiled by Lokanātha Kaviratna.[45]

ĀYURVEDASAṂGRAHA by (Vāsiṣṭha) Gaṇapatiśāstrin, styled Kāvyakaṇṭha. The author (18.11.1878–25.07.1936), son of Narasiṃhaśāstrin of Kalavarāyi village in Vizagapatam district, Āndhra Pradeś, was an adherent and pupil of Ramaṇa Maharṣi of Tiruvaṇṇāmalai.[46]

ĀYURVEDASŪTRA by Rāmaprasāda Śarman is a short treatise in sūtra style, with a Sanskrit and Hindī commentary by the author. It deals, in forty-seven sūtras, arranged in three chapters, with basic āyurvedic concepts.[47] The author was the father of Paṇḍit Shiv Sharma.[48] He also wrote the *Rasendrapurāṇa*.[49]

ĀYURVEDAUṢADHARATNĀKARA, compiled by Śrīpāda Kṛṣṇamūrti Śāstrin.[50]

ĀYURVEDĪYA HITOPADEŚA,[51] written by Raṇajitrāya Desāī,[52] is a compilation from the *Caraka*- and *Suśrutasaṃhitā* with their commentaries, the works of Vāgbhaṭa, the *Śārṅgadharasaṃhitā*, the *Bhāvaprakāśa*, etc.; it is accompanied by a Hindī commentary. The same author wrote an *Abhinavaśarīrakriyāvijñāna*,[53] *Āyurvedīyapadārthavijñāna*,[54] and *Nidānacikitsāhastāmalaka*.[55]

ĀYURVEDĪYA OṢADHINIGHAṆṬU by Tayyil Kumāran Kṛṣṇan,[56] a dictionary containing about 25,000 Sanskrit names of drugs.

ĀYURVEDĪYAPADĀRTHAVIJÑĀNA by Raṇajitrāya Desāī.[57]

ĀYURVEDĪYA-PADĀRTHAVIJÑĀNA by Cintāmaṇi Gaṇeśa Kāśīkar.[58]

This work deals with philosophical concepts and their use in āyurveda. It is divided into four chapters: (1) pramāṇavicāra (1–59), (2) kāryakāraṇabhāvavicāra (60–74), (3) prameyavicāra (75–122), and (4) puruṣavicāra (123–134), followed by a pariśiṣṭa on the tantrayuktis (135–155), and one on weights, measures, units of time, etc. (156–169).

Apart from several medical works, numerous philosophical treatises are quoted.

ĀYURVEDĪYA PAÑCAKARMACIKITSĀ, compiled by Mukundīlāl Dvivedī, Tārācand Śarmā, and Bhairava Miśra,[59] is an extensive compilation of verses and prose passages on pañcakarman from the following sources: *Aṣṭāṅgahṛdayasaṃhitā* with the commentaries of Aruṇadatta, Candranandana, Hemādri and Parameśvara, *Aṣṭāṅgasaṃgraha* with Indu's commentary, *Bhāvaprakāśa*, *Bhelasaṃhitā*, Cakrapāṇidatta's *Cikitsāsaṃgraha* with the commentary of Śivadāsasena, *Carakasaṃhitā* with the commentaries of Cakrapāṇidatta, Jejjaṭa and Yogīndranāthasena, *Hārītasaṃhitā*, *Kāśyapasaṃhitā*, *Śārṅgadharasaṃhitā* with the commentaries of Āḍhamalla and Kāśīrāma, *Suśrutasaṃhitā* with the commentaries of Ḍalhaṇa and Hārāṇacandra, and Vaṅgasena's *Cikitsāsārasaṃgraha*.

ĀYURVEDĪYAPATHYĀPATHYAVIMARŚA, written by Paramānanda,[60] is a treatise on dietetics.

ĀYURVEDĪYAŚĀRĪRA by Gaṇeśaśarman.[61]

ĀYURVIJÑĀNARATNĀKARA by Yogendranātha.[62] This treatise, partly in prose, partly in verse, is divided into four sections (khaṇḍa). The first and longest one, in seven chapters, is concerned with vāyu; the second, in two chapters, with pitta, and the third, in three chapters, with kapha. Chapter one of section four is about combinations of the doṣas, while its second chapter contains a summary of the contents of the book.

The opening chapter gives definitions of āyus, vyādhi, etc. The remaining part of section one is devoted to vāyu and its qualities (chapter two), the types of vāyu, their seats, actions, etc., and the nāḍīs (chapter three), the excitement of vāyu (chapter four), diseases caused by vāyu (chapter five), the general treatment of these diseases (chapter six), and specific remedies against these diseases (chapter seven). The arrangement of sections two and three is analogous to that of section one.

A special feature of the *Āyurvijñānaratnākara* is that it draws its material from a wide range of sources. It quotes not only from the *Atharvaveda*, various Upaniṣads, Tantras, and āyurvedic treatises, but has also been influenced by western medicine. Borrowed from western medical science is, for example, the description of śoṇitocchvāsa (hypertension; I.3.20) and its treatment (I.7, pages 271–272). Other noteworthy features are the attention paid to the system of nāḍīs (I.3), a rather long passage devoted to vāyuparivartana (change of climate; I.3.22), the employment of the term upadaṃśa as an equivalent of syphilis (I.7, page 254) and of aupasargikameha as the equivalent of gonorrhoea (I.7, page 254), the description of a plant, called

svalpacandramūla, as a remedy against insanity (I.7),[63] and the use of vernacular terms (I.7, page 273).

Authorities and works quoted are: *Atharvaveda* (I.3.41 and 50), *Bhagavadgītā* (II.1.2; III.1.26), Bhāvamiśra (I.2.12 and 27; I.3.20), *Bhāvaprakāśa* (I.3.33), Bhela (II.1.17), *Brahmayāmala*[64] (I.3.78), Caraka (passim), *Chāndogyopaniṣad* (I.3.40, 56, 64, 124), Ḍalhaṇa (III.1.18 and 28), Jatukarṇa (I.4.19), *Mahābhārata* (I.3.38, 39, 55, 67, 92), *Mūlabhārata* (I.3.31), *Nāḍīvijñāna* (I.3.74), *Narapatijayacaryā Svarodaya*[65] (I.3.78), *Pātañjaladarśana* (I.3.116), *Prāṇatoṣaṇītantra* (I.3.48),[66] *Praśnopaniṣad* (I.3.73, 113, 121), Rāghavabhaṭṭa (I.3.130),[67] Rāyamukuṭa (I.3.34, 45, 83, 96, 108),[68] *Rudrayāmala* (I.3.76), *Śāṃkarabhāṣya* (I.3.63),[69] *Sāṃkhyakārikā* (III.1.1), *Śārṅgadhara* (I.2.17; 3.31) and its *Gūḍhārthadīpikā* commentary (by Kāśīrāma; I.3.31), *Śrīmadbhāgavata* (I.3.39), Suśruta (passim), *Tantraśāstra* (I.3.31), *Tattvacintāmaṇi* (I.3.81),[70] Triśaṭācārya (i.e., Tīsaṭa; I.4.26), Vāgbhaṭa (passim), *Vidvanmanorañjanī*[71] (I.3.122), *Viśvasāratantra* (I.3.47, 84, 95, 106),[72] *Yogārṇava* (I.3.46, 66, 68, 85, 91, 98, 103, 107, 115, 120, 125),[73] and *Yogiyājñavalkya*[74] (I.3.37, 49, 69, 86, 99, 109, 131).[75]

BĀLACIKITSĀTANTRA, compiled by Gaurīśaṃkara Śarman.[76]

BHAIṢAJYAMAṆIMĀLIKĀ, compiled by Satyācaraṇa Sena Gupta.[77]

BHĀRATABHAIṢAJYARATNĀKARA, compiled by Rasavaidya Nagīnadāsa Chaganalāla Śāha,[78] consists of a huge and very useful collection of about 10,000 formulae drawn from numerous sources.[79] A short chapter at the beginning contains definitions of the five types of kaṣāya and rules for the prakṣepa to be added. The formulae are arranged alphabetically, according to the first akṣara of their name. Those beginning with the same akṣara are listed in a fixed order: kvātha, cūrṇa, guṭikā, guggulu, pāka, avaleha, ghṛta, taila, āsavāriṣṭa, lepa, dhūmra, añjana, nasya, rasa, kalpa, and miśra.

The *Bhāratabhaiṣajyaratnākara* is one of the sources of the *Bheṣajasaṃhitā* and the *Rasadhātuprakāśa*.

BHEṢAJASAṂHITĀ by Caraṇatīrtha Mahārāja (i.e., Jīvrām Kālidās).[80] This work consists of a collection of formulae, compiled from a large number of sources, accompanied by explanations in Hindī. The explanations are about the way of preparing the compound drugs, their bhāvanā, dosage, anupāna, and indications.

The treatise is divided into sixteen sections (prakaraṇa) and a pariśiṣṭa. Each section deals with a particular group of pharmaceutical preparations: (1) rasa, rasāyanakalpa (318 formulae); (2) kūpīpakvarasa (25 formulae); (3) parpaṭī, poṭṭalī (33 formulae); (4) lauha, maṇḍūra (57 formulae); (5) bhasman, piṣṭi (77 formulae); (6) guṭikā, gugulukalpa (129 formulae); (7) cūrṇakalpa (100 formulae); (8) añjana, netrayoga (27 formulae); (9) nasya, dhūmayoga, dhūpa (17 formulae); (10) kṣāra, lavaṇa, drāva (7 formulae); (11) ghṛta (55 formulae); (12) taila (80 formulae); (13) lepa, malama (53 formulae); (14) kvātha, kṣīrayoga (136 formulae); (15) avaleha, pāka (48 formulae); (16) āsava, ariṣṭa, arka (40 formulae); the pariśiṣṭa section is concerned with the purification of a number of substances (dravyaśodhana), and with weights and measures

(mānaparibhāṣā).

By far the larger part of the formulae are quoted from Sanskrit texts; those borrowed from treatises in Hindī are not reproduced, but summarized.

The sources of the *Bheṣajasaṃhitā* are: *Aṣṭāṅgahṛdayasaṃhitā*, *Āyurvedavijñāna* (by Vinodalāla Sena), *Basavarājīya*, *Bhaiṣajyaratnāvalī* (by Govindadāsa), *Bhāratabhaiṣajyaratnākara*, *Bhāvaprakāśa*, *Bṛhadyogataraṅgiṇī*, *Bṛhannighaṇṭuratnākara*, *Cakradatta*, *Carakasaṃhitā*, *Cikitsāpradīpa*,[81] *Dravyaguṇavijñāna*,[82] *Rasacaṇḍāṃśu*, *Rasakāmadhenu*, *Rasāmṛta*, *Rasaprakāśasudhākara*, *Rasarājasundara*, *Rasaratnākara*, *Rasaratnasamuccaya*, *Rasasaṃketakalikā*, *Rasatantrasāra* or *Siddhaprayogasaṃgraha*,[83] *Rasataraṅgiṇī*, *Rasāyanasāra*,[84] *Rasayogasāgara*, *Rasendracintāmaṇi*, *Rasendrasārasaṃgraha*, *Rasoddhāratantra*,[85] *Sahasrayoga*, *Śārṅgadharasaṃhitā*, *Siddhabhaiṣajyamaṇimālā* (by Kṛṣṇarāma), *Siddhayogasaṃgraha*,[86] *Vaidyajīvana*, *Vaidyayogaratnāvali*,[87] *Yogacintāmaṇi*, *Yogaratnākara*, *Yogaśataka* (by Vopadeva),[88] and *Yogataraṅgiṇī*.

Jīvrām Kālidās[89] was born from brāhmaṇa parents in a village called Mevāsā, near Jāmnagar, in 1882/83. After the death of his parents, when he was eight years old, he went to live with a paternal uncle in Goṇḍal, where he studied Sanskrit with Kevalrām Līlādharjī Śāstrī. He moved to Girnār in 1903/04 and studied Sanskrit, āyurveda and mantraśāstra with Acyutānand Brahmacārī, with whom he wandered in the Himālayas. After having lived for some time in Bombay, he started a practice in Goṇḍal, where he founded the Rasaśālā Auṣadhāśrama in 1909/10. The Mahārāja of Goṇḍal, Bhagavatsiṃhajī Bahādur, appointed him royal physician in 1915/16. Later in life, he became a saṃnyāsin and changed his name into Caraṇatīrthajī Mahārāj.[90]

Jīvrām Kālidās not only wrote the *Bheṣajasaṃhitā* and *Rasoddhāratantra*, but also edited a number of Sanskrit medical texts (*Praśastauṣadhasaṃgraha*, *Rasaprakāśasudhākara*, *Vādi-* and *Ṛddhikhaṇḍa* of the *Rasaratnākara*, *Vyādhinigraha*, *Yogataraṅgiṇī*).

BHIṢAGBHŪṢAṆA, compiled by Pārthasārathi Kṛṣṇamācārya.[91]

BHIṢAKSARVASVA, composed by Aghoranāthaśāstrin,[92] who also wrote an auto-commentary on his work.

The first part of the *Bhiṣaksarvasva* consists of 440 verses, arranged in four chapters (adhyāya). The treatise is characterized by a mixture of traditional āyurvedic and western medical concepts.

Chapter one (upakramaṇīya) deals with some definitions (jīvita, dhātu, śarīra), the three guṇas and the three doṣas, types of country (deśa), divisions of time, astrology connected with medicine, the seven dhātus, the six tastes, the three doṣas again, and, finally, increase and decrease of the doṣas, dhātus and impurities (mala). Chapter two (śarīravijñānīya) is about anatomy, chapter three (sātmyarakṣaṇīya) on behavioural rules during the day and the night and during the seasons, and chapter four (janapadoddharaṇīya) on the construction of a house, garden, etc., where one can live healthily. Sources are not referred to.[93]

The three doṣas and the three guṇas are interconnected: vāta and pitta are composed of sattva and rajas, kapha consists of tamas (1.7–15). The three types of country correspond to the three doṣas: vāta predominates in the pārvatya,[94] pitta in the jāṅgala, and kapha in the ānūpa type (1.18–19).[95] The first five days of a lunar fortnight, called karṣaṇī, are characterized by an increase of vāta and are suitable for śamanī therapeutic measures; the second five, called śoṣaṇī, characterized by an increase of pitta, are suitable for rasāyanī procedures; the third five, called poṣaṇī, characterized by an increase of kapha, are suitable for haraṇī purposes (1.29–33).[96] Relationships are described between the seven grahas on the one hand, and the three guṇas, the three doṣas, the seasons, and various parts of the human body on the other (1.34–42). Eight chief parts of the body are distinguished: the head, the neck, the two arms, the chest, the belly, the two lateral parts of the chest (pārśva), the back, and the two legs (2.6–23).[97] The thymus is known to the author.[98] Voluntary (kāmavṛtta) and involuntary (svavṛttaka) muscles are distinguished (2.64–68). The kaṇḍarās are described as tendons in the sense of western anatomy (2.80–81). The term dhamanī is used for an artery, śirā for a vein (e.g., 2.107), srotas for a lymph vessel (2.107–110), snāyu for a nerve (2.111–114). After dealing with anatomy along the lines of the *Suśrutasaṃhitā*, mixed with some modern concepts, Aghoranātha describes the organ systems and their physiology in agreement with western medicine. He explains, for example, the circulation of the blood (raktaparikrama) and the functions of heart and lungs (2.147–161), mentions the three small cartilaginous bones of the middle ear (2.131–134), the olfactory nerve (2.135–137), the ovaries (dimbakoṣa: 2.219), the Fallopian tubes (karṣikā: 2.219), etc.

Sources quoted in Aghoranātha's auto-commentary are: *Ānandalaharī* (3.21),[99] Ātreya (2.191–192), *Bhānumatī* (3.7), *Bhāvaprakāśa* (often), *Carakasaṃhitā* (often), *Gāruḍa* (4.4 and 10–11), *Garuḍapurāṇa* (4.16), Hemacandra (2.212), Jayadatta (2.137–143), *Jyotiṣasaṃhitā* (1.37–38), Mādhavakara (1.104), *Nāḍīprakāśa* (2.85), *Nāḍīvijñāna* (2.94–96), Nandana (1.26 and 27),[100] *Rājasaṃgraha* (3.7),[101] *Rogaviniścaya* (1.85 and 104), *Śārṅgadharasaṃhitā* (2.162–163), *Suśrutasaṃhitā* (often), Vāgbhaṭa (2.162–163), vaidyakasiddhavacana (2.202), and Viśva (2.210).

The author was born in Koṇanagara, on the banks of the Ganges. He was a son of Gopālacandra and a pupil of Harinātha.[102]

Aghoranātha completed his *Bhiṣaksarvasva* in 1906/07.[103]

BṚHACCHĀRĪRA[104] by Vaidya Ratnam P.S. Vāriyar.[105] Part II is a treatise on osteology in verse and prose, consisting of ten chapters (adhyāya): (1) pṛṣṭhavaṃśavivaraṇa (the vertebral column), (2) śiraḥkapālavivaraṇa (the flat bones of the cranium), (3) itarakaroṭyasthivivaraṇa[106] (other bones of the skull, such as the sphenoid: sphīnakāsthi, ethmoid: sīvakāsthi, etc.), (4) mukhamaṇḍalāsthivivaraṇa (the bones of face and oral cavity), (5) samastaśiraḥkaṅkālivivaraṇa (a survey of the structures of the head), (6) urosthipārśukāvivaraṇa (the bones of the thorax), (7) aṃsacakravivaraṇa (the bones of the shoulder girdle), (8) uttaraśākhāsthivivaraṇa (the bones of the arms), (9) kaṭīcakravivaraṇa (the bones of the pelvic region), (10) adhaḥśākhāsthivivaraṇa (the bones of the legs).

BṚHADĀSAVĀRIṢṬASAṂGRAHA by Kavirāj Devasiṃha Viṭṭhal[107] is a collection of 170, alphabetically arranged recipes of āsavas and ariṣṭas.

Sources mentioned are: *Aṣṭāṅgahṛdayasaṃhitā, Aṣṭāṅgasaṃgraha, Āyurvedasaṃgraha, Āyurvedasopāna,*[108] *Bhaiṣajyaratnāvalī, Bhāratabhaiṣajyaratnākara, Bhāvaprakāśa, Cakradatta, Carakasaṃhitā, Gadanigraha, Rasakāmadhenu,* Śārṅgadhara, *Siddhabhaiṣajyamaṇimālā, Vaidyakaśikṣā,*[109] Vaṅgasena, *Vīrasiṃhāvaloka, Vṛndamādhava, Yogacintāmaṇi, Yogaratnākara,* and *Yogataraṅgiṇī.*

CIKITSĀNUŚĀSANA by Gaṇapatiśāstrin.[110]
CIKITSĀPRABANDHASAMUCCAYA by Rāmacandra Śarman.[111]

CIKITSĀSAṂGRAHA by Lakṣmīdhara Śarmā.[112] This work, written partly in Sanskrit, partly in Hindī, consists of the following chapters: netraparīkṣā, yantracikitsā, mantracikitsā, anupānavyavasthā, tailādhyāya, mūtraparīkṣā, sujākacikitsā, nighaṇṭu, strīrogādhikāra, vājīkaraṇādhikāra, vīryastambhādhikāra, rasāyanādhikāra, dravyādivyavasthā, ṣaḍrasavyavasthā, dravyaguṇavyavasthā, dravyavīryavyavasthā, dravyaprabhāvavyavasthā, dravyavipākavyavasthā, aśvacikitsā, and virecana.

Sources referred to are: Caraka (93; 139), Lolimbarāja (43), Suśruta (149; 172), and Vāgbhaṭa (137; 140; 143; 144; 161; 165; 171).

The *Cikitsāsaṃgraha* was completed in 1902.[113]

Lakṣmīdhara Śarmā was born in Karhal (Maiṃnapurī district) in 1857. He became a well-known medical practitioner in Maiṃnapurī, where he founded the Caturvedī Auṣadhālaya. He died in 1907. Apart from the *Cikitsāsaṃgraha,* he wrote the *Ārogyatāpaddhati* (published in 1901) and *Āhārasaṃhāra* (published in 1982).[114]

CIKITSĀTARAṄGIṆĪ, compiled by Dayānidhi Miśra.[115]
CIKITSĀTATTVAPRADĪPA by B.V. Gokhale.[116]
CŪRṆACIKITSĀDARPAṆA, compiled by Gaṇapatiprasāda Śarman.[117]
DEHATATTVA, compiled by Vipinavihārin Gupta.[118]

DOṢAKĀRAṆATVAMĪMĀṂSĀ by Priyavrat Śarmā.[119] This small work, in prose, interspersed with quotations, is concerned with the doṣas and their role in the aetiology of diseases. It is divided into two parts, written in Sanskrit and Hindī respectively.

The Sanskrit part deals with the following subjects: kāraṇatvam, kāryakāraṇabhāvaḥ, kāryasyotpādavināśau, vikāraḥ, doṣavaiṣamyaṃ kāraṇaṃ kāryaṃ vā, doṣāṇāṃ kāraṇatvam, siddhāntaḥ.

The subjects of the Hindī part, corresponding to but not completely identical with that composed in Sanskrit, are: (1): kāraṇatva kā sāmānya vivecan: paribhāṣā, prakār, kāryakāraṇabhāva, kārya kī utpatti aur vināś, svabhāvoparamavād; (2): doṣoṃ kā kāraṇatva: vikār kā svarūp, doṣavaiṣamya kāraṇ yā kārya, vikār kī utpatti, Vāpyacandra kā mat, Vijayarakṣit kā uttarapakṣa, arvācīn ācāryoṃ kā mat, siddhānt.

Sources quoted are: *Aṣṭāṅgahṛdayasaṃhitā,* Cakrapāṇidatta's commentary on the *Carakasaṃhitā, Carakasaṃhitā,* Ḍhuṇḍhirājaśāstrin's ṭippaṇī on the *Vaiśeṣikasūtra,*[120] Gaṇanāthasena's *Siddhāntanidāna,* Gaṅgādhara's *Jalpakalpataru* on the *Carakasaṃhitā, Gītā, Kārikāvalī,*[121] *Mayūkha,*[122] *Muktāvalī,*[123] *Nyāyabodhinī,*[124] *Nyāyasūtra, Pratibimbaṭīkā*[125] on the *Tarkasaṃgraha,* Śaṃkaramiśra's *Vaiśeṣikasūtropaskāra,*[126] *Sāṃkhyakārikā, Suśrutasaṃhitā, Tarkasaṃgraha,*[127] Uddyotakara's *Nyāyavārttika,*[128] Vācaspatimiśra's *Nyāyavārttikatātparyaṭīkā*[129] and *Sāṃkhyatattvakaumudī, Vaiśeṣikasūtra,* Vāpyacandra, and Vijayarakṣita's part of the *Madhukośa.*

DRAVYAGUṆASŪTRA by Priyavrat Śarmā[130] is a short work in sūtra style on the principles of Indian pharmacology.

Chapter one (padārthaprakaraṇa; 7 sūtras): the subject of the work; the scope of the term guṇa; āyurveda was divided into eight branches by the ancient sages, but is now regarded as consisting of sixteen branches: maulikasiddhānta (basic concepts), śārīra (anatomy and physiology), dravyaguṇa (pharmacology), bheṣajakalpanā (the preparation of medicines), rasaśāstra (iatrochemistry), nidāna (pathology and diagnostics), kāyacikitsā (internal medicine), svasthavṛtta (maintenance of health), mānasaroga (psychiatry), rasāyana (measures conducive to longevity), vājīkaraṇa (aphrodisiacs), agadatantra (toxicology), śalya (surgery), śālākya (the treatment of diseases of the supraclavicular region), kaumārabhṛtya (paediatrics), and prasūtitantra (obstetrics and gynaecology); dravyaguṇa is the foremost among these branches; dravyaguṇa is divided into nāmarūpajñāna (pharmacognosy), guṇajñāna (knowledge concerning the properties of medicinal substances), karmajñāna (knowledge concerning their actions), prayogajñāna (knowledge concerning their applications), yogajñāna (knowledge concerning compound formulae), and kalpajñāna (knowledge concerning the preparation and dosages of kvāthas, etc., medicated ghees and oils, etc.); the seven basic concepts of dravyaguṇa: dravya, guṇa, rasa, vipāka, vīrya, prabhāva, and karman.

Chapter two (dravyaprakaraṇa; 10 sūtras): dravya, the substratum of guṇa and karman, is the samavāyikāraṇa; dravya is divided into āhāra (articles of food) and auṣadha (drugs); its sources are of an inorganic (bhauma), animal (jāṅgama) or vegetable (audbhida) nature; vegetable substances are derived from trees (vṛkṣa), creepers and climbers (latā), shrubs (gulma), and herbs (kṣupa); dravyas are śamana (pacifying), kopana (causing excitement of the doṣas) or svasthahita (maintaining a healthy condition); groups (gaṇa) of drugs are those called jīvanīya, etc., vidārigandhādi, etc.; all the dravyas are composed of the five mahābhūtas; each and every dravya may be used as a drug; dravyas are the causes of stability, increase and decrease of the (constituents of the) body; dravya is predominant because it constitutes the substratum of guṇa, etc.

Chapter three (guṇaprakaraṇa; 10 sūtras): guṇa inheres in dravya and is an asamavāyikāraṇa; the guṇas are forty-one in number and are classified as kāyika (somatic), sāttvika (psychic), bhautika (physical) and yaugika (applicable in medicine); the somatic guṇas are arranged in ten pairs of opposites: guru and laghu, manda and tīkṣṇa, śīta and uṣṇa, snigdha and rūkṣa, ślakṣṇa and khara, sāndra and drava, mṛdu and kaṭhina, sthira and sara, sthūla and sūkṣma, picchila and viśada; they may also be classified according to the predominating mahābhūta: guru, manda, kaṭhina, sthira, sāndra and sthūla are pārthiva; snigdha, drava, śīta, mṛdu, sara and picchila are āpya; uṣṇa and tīkṣṇa are āgneya; rūkṣa, khara and viśada are vāyavya; laghu, sūkṣma and

ślakṣṇa are nābhasa in nature; the six psychic guṇas are: icchā, dveṣa, sukha, duḥkha, prayatna and buddhi; the physical guṇas are: śabda, sparśa, rūpa, rasa and gandha; the ten yaugika guṇas are: paratva, aparatva, yukti, saṃkhyā, saṃyoga, vibhāga, pṛthaktva, parimāṇa, saṃskāra, and abhyāsa; incompatibility may arise from the combination (saṃyoga) of dravyas; saṃyoga, vibhāga, saṃskāra and yukti influence the action of dravyas and determine their strength or weakness; guṇa is important due to its attractive character (ākarṣakatva), resembling that of a rope.

Chapter four (rasaprakaraṇa; 14 sūtras): rasa (taste) is the object of the gustatory sense and has dravya as its substratum; rasa is perceived due to its contact (nipāta) with the sense organ of gustation; the tastes are six in number: madhura, amla, lavaṇa, kaṭu, tikta and kaṣāya; madhura is pārthiva and āpya in nature, amla is pārthiva and āgneya, lavaṇa is āpya and āgneya, kaṭu is āgneya and vāyavya, tikta is vāyavya and ākāśīya, kaṣāya is pārthiva and vāyavya; madhura counteracts vāta and pitta, but increases kapha; amla and lavaṇa increase kapha and pitta, but counteract vāta; kaṭu increases vāta and pitta, but counteracts kapha; tikta and kaṣāya counteract kapha and pitta, but increase vāta; many more actions are attributed to the tastes; madhura, kaṣāya and lavaṇa are guru to a decreasing degree; tikta, kaṭu and amla are decreasingly laghu in the mentioned order; madhura, amla and lavaṇa are in a similar way snigdha; kaṣāya, kaṭu and tikta are rūkṣa, madhura, kaṣāya and tikta are śīta, lavaṇa, amla and kaṭu are uṣṇa in a similar way; lavaṇa, amla and madhura are usually employed to counteract vāta, tikta, madhura and kaṣāya to counteract pitta, kaṭu, tikta and kaṣāya to counteract kapha; anurasa is an unmanifest rasa; rasa is important due to its prominence in practice and because it indicates the nature of a dravya.

Chapter five (vipākaprakaraṇa; 5 sūtras): vipāka is a transformation (pariṇati) of dravya, occurring at the completion of digestion (pākaniṣṭhā); it is of three types according to taste and its effect on the doṣas: madhura, amla and kaṭu; it is of two types according to the guṇas: guru and laghu; madhuravipāka increases kapha, amlavipāka pitta, and kaṭuvipāka vāta; other effects should be noticed too; guruvipāka is bṛṃhaṇa, laghuvipāka is laṅghana; vipāka is important because the good or bad effects of a dravya depend on it.

Chapter six (vīryaprabhāvaprakaraṇa; 9 sūtras): vīrya is śakti, the means of action of a dravya; in practice (vyavahāra), it consists of the active constituents of a substance (kārmukadravyāvayava) in the form of the essence of the mahābhūta(s) present in excess; in pharmaceutical processing, the vīrya is transferred (saṃkrānti) to the medium; vīrya is of six types: guru, laghu, śīta, uṣṇa, snigdha, and rūkṣa, which lead to increase or decrease of the doṣas, and are the basis of the six types of therapeutic procedure;[131] vīrya has the character of guṇa, is manifested by its karman, and has dravya as its substratum; prabhāva is a specific power (śakti); vīrya and prabhāva may be determined from the entry (of a substance) into the body onwards until the end of its stay there; vīrya is important because it is instrumental in the action (of a substance); prabhāva is important due to its specificity and its strength.

Chapter seven (karmaprakaraṇa; 3 sūtras): karman is the cause of saṃyoga and vibhāga, is characterized by activity, and has dravya as its substratum; adhikaraṇa is the site of action; karman is important as the object pursued by physicians.

Chapter eight (auṣadhaprakaraṇa; 51 sūtras): auṣadha is called thus because it possesses oṣa, which is the same as vīrya; an auṣadha should possess rasa, etc., and be suitable (to the particular occasion on which it is used); it should be examined by means of pratyakṣa and anumāna in terms of prakṛti, deśa and kāla; the dosage depends on the disease, the drug itself and the strength of the patient; pharmaceutical preparations are svarasa, kvātha, etc.; the main actions of many single drugs are described (8.6–50); an ideal drug is that one which does not lead to complications.

Chapter nine (samāhāraprakaraṇa; 5 sūtras): sāmānya is the same as tulyārthatva and is the cause of increase, while viśeṣa has an opposite meaning and is the cause of decrease; in general, vipāka overcomes rasa, vīrya overcomes vipāka, prabhāva overcomes vīrya; the more potent property overcomes the less potent one; rasa, etc., exhibit their proper action; a wholesome substance increases the life span, an unwholesome substance reduces it.

Authorities and works quoted or referred to in the auto-commentary are: Agniveśa (2.5), Amara (2.3 and 4; 8.1), *Amarakośa* (3.7), *Aṣṭāṅganighaṇṭu* (8.42), Bhāvamiśra (2.7; 8.6, 11, 31, 37), *Bhāvaprakāśa* (8.9), Cakrapāṇi(datta) (2.2, 5, 6; 3.7; 4.4; 5.1; 6.4; 7.1; 8.3), Cakrapāṇi(datta)'s *Āyurvedadīpikā* (1.2; 4.13; 8.1), Caraka (passim), Ḍalhaṇa (2.4; 6.4; 8.31), *Dhanvantarinighaṇṭu* (8.3), the author's *Dravyaguṇavijñāna* (1.1; 4.12), Hemādri (3.3), Hemādri's *Āyurvedarasāyana* (6.4), *Madanavinoda* (8.6 and 9), Narahari's *Rājanighaṇṭu* (1.3), Naraharipaṇḍita (2.4), Narasiṃha's commentary on the *Rasavaiśeṣikasūtra* (3.1; 4.1; 6.5), *Nyāya* (1.7), the author's *Priyanighaṇṭu* (8.13 and 23), *rasaśāstra* (2.3), *Rasavaiśeṣika(sūtra)* (1.7; 2.1; 3.1; 4.4; 8.3), *Sāṃkhya* (2.7), *Sāṃkhyakārikā* (3.5), Śivadāsa (5.1; 6.2), Śivadāsa's commentary on Cakrapāṇi's *Dravyaguṇa* (1.1), the author's *Ṣoḍaśāṅgahṛdaya* (1.3; 8.3 and 41), Śrībhagavant (3.10), Suśruta (passim), Tīsaṭa (8.48 and 49), Vāgbhaṭa (1.4; 2.5 and 6; 3.3; 4.3; 4.13; 5.1; 6.6; 8.9, 15, 37, 42, 46), *Vaiśeṣika* (1.7; 7.1; 9.1), Vijayarakṣita (8.10), Vopadeva's *Siddhamantraprakāśa* (6.1), *Vṛddhavāgbhaṭa* (6.4 and 6; 8.3 and 10), and Yāska's *Nirukta* (2.4).

DRAVYAGUṆAVIJÑĀNA[132] by Yādavaśarman,[133] a work in three volumes. Volume I, partly in Sanskrit, partly in Hindī, deals with the basic concepts of pharmacology and explains a large number of technical terms; the Sanskrit passages consist of quotations and comments by the author. Volume II, in Sanskrit and Hindī, is devoted to rules pertaining to the preparation of drugs (paribhāṣā); the Sanskrit passages consist partly of quotations, partly of verses and comments by the author. Volume III, in Hindī, describes the names, properties and actions of numerous medicinal substances.

GADAVINIŚCAYA or *Rogajñānakrama* by B.L.S. Silva.[134]

INDIAN MEDICINAL PLANTS: A COMPENDIUM OF 500 SPECIES, edited by P.K. Warrier, V.P.K. Nambiar and C. Ramankutty.[135] The five volumes of this work contain, apart from quotations from numerous nighaṇṭus, also many Sanskrit verses describing medicinal plants employed in Kerala which are absent from other treatises.[136] These stanzas were probably composed by S. Raghunatha Iyer, on whose research the com-

pendium is based.

Examples of these plants are: anyāmragandhā,[137] aśvakatrī,[138] auddālaka (also called śvānamāra),[139] bhūlavaṅga,[140] cāmpeya,[141] caturāṅgī (also called vanacchedī),[142] chattrī (also called kukkurajihvā),[143] chāyāparpaṭikā,[144] dārukanda (also called kalpakanda),[145] dhanavallī,[146] garalaphalā (also called kākamārī),[147] giriśālmalikā,[148] gostanī (also called vanyajātī),[149] hemamālatī (also called caturdhāralatā),[150] kaṃsamāra,[151] kāñcana,[152] kṛṣṇāmlīkā (also called golikā),[153] latākṣīrī,[154] nikuñjikā,[155] nīlavallī (also called vallīśākhoṭa),[156] nityakalyāṇī,[157] pratānikā,[158] pūlikā (also called kṛṣṇakāmbojī),[159] śaṭhāmbaṣṭhī,[160] sphoṭyābhujaṅga,[161] śvetanirviṣā,[162] tāmraka,[163] tripuṭa,[164] viṣaghnī (also called anādanā),[165] vitāna,[166] and yūthikāparṇī.[167]

JVARATIMIRANĀŚAKA by Rāmprasād Kyākhūb Caube.[168] This work is a short treatise on fevers and their treatment, in Sanskrit verse and Hindī prose.

Chapter one (13 verses) is of an introductory nature; chapter two (7 verses) discusses fever in general; chapter three (63 verses) deals with the general treatment of fevers; chapter four (156 verses) is about the types of fever and their treatment; chapter five (45 verses) contains a number of prescriptions (rasas, pākas, etc.).

Sources are not mentioned.

The Hindī parts are strongly influenced by Yūnānī and western medicine. On some occasions, Kyākhūb, who calls himself a hakīm, gives answers to questions put by Gaurīśaṅkar Caube.[169]

KĀYACIKITSĀ, compiled by Satyācaraṇa Sena Kavirañjana.[170]

LAKṢMĪMODATARAṄGIṆĪ by Gaṇeśadatta Śāstrin[171] is a work of about 800 verses, arranged in four chapters (taraṅga).

Chapter one gives a detailed genealogy of the author; it also tells about his studies and the composition of his book, completed in 1930. Chapter two is concerned with the rules for a healthy life (svasthavṛtta), chapter three with the regimen to be observed during the various seasons (ṛtucaryā). Chapter four, the longest one, divided into thirty-four adhikāras, deals with the treatment of diseases and consists mainly of recipes. A shorter version of the author's genealogy closes the work. The order of the diseases agrees with that of the *Mādhavanidāna*. The sources of some formulae are given in footnotes.[172]

The *Lakṣmīmodataraṅgiṇī* mentions a large number of drugs that are rare or unknown in earlier works. Unusual names of medicinal substances are employed. Borrowings from Islamic and western medicine are also met with. Examples are:[173] abhala (94),[174] anisuka (65),[175] dārusitā (25; note: = dālacīnī), īśāvagola (21),[176] jarāvinda (89),[177] jūphā (53),[178] kāhū (50),[179] kākodara (33; note: = ahiphena), kālasorakṣāra (45), kāsinī (25),[180] kavāvakhannā (52),[181] khatamī (52),[182] koṣaphala (92; note: = kavāvacīnī), kusā (49; note = gojihvā), madaṅgī (30; note: = mastagī), naraśaṭhī (72),[183] niṣphena (33; note: = ahiphena), pāṣāṇakola (104), pharaphendu (21; note: = gavākṣī), picchāphala (52), podīna (71),[184] puṣpakanda (31; note: = gulakanda), revantakāṣṭha (88),[185] sanāmikā (88; note: = sanāya),[186] saṅgayasava

(67),[187] śrīkṛṣṇabīja (81),[188] ustakhaddūsa (25),[189] and yākūtaka (67).[190]

MĀDHAVANIDĀNAPARIŚIṢṬA by Brahmaśaṃkara Śāstrī.[191]

MĀDHAVANIDĀNAPARIŚIṢṬA by Dīnanātha Śarmasāstrin, an appendix to the *Mādhavanidāna*,[192] describing, in Sanskrit, a long series of diseases only found, for the largest part, in more recent āyurvedic literature: mantharakajvara (enteric or typhoid fever), granthikajvara (bubonic plague), vātaślaiṣmikajvara (influenza), sandhikajvara (rheumatic fever), śvasanakajvara (pneumonia), ākṣepakajvara (cerebrospinal fever), daṇḍakajvara (dengue), karṇamūlikajvara (mumps), mālṭājvara (Malta fever), kālajvara (kala azar), aupasargikavisūcikā, urastoya (pleurisy), phupphusāvaraṇapradāha (dry pleurisy), smaronmāda, bhramonmāda, mahāgada, vṛkkaroga, agnyāśayaroga, tāntavikaroga, cullikāgranthiroga (diseases of the thyroid), klaibya, śukradoṣa, śukrameha, ojomeha, somaroga, mūtrātisāra, vandhyāroga, jarāroga, upāntraśotha (appendicitis), hṛdyantraroga,[193] pāradaroga, āgantukapakṣāghāta, śaiśavasaṃnyāsa, yoṣāpasmāra, upadaṃśa, sahajopadaṃśa, bhṛśoṣṇavāta (gonorrhoea), aṃśughāta (sunstroke), and śītalā.

MAHĀYOGĀNANDĀMṚTAKALPAVALLĪ by Veṅkaṭasiṃhādri Jagapati Rāju, a work in verses derived from various sources.[194]

NAPUṂSAKĀMṚTĀRṆAVA by Rāmaprasāda.[195] This work, a monograph on disorders of male sexual potency and their treatment, written in the form of a dialogue between a teacher and his pupil, is arranged in nine chapters (taraṅga): (1) napuṃsakanidānavarṇana (102 verses); (2) napuṃsakacikitsita (101 verses); (3) vājīkaraṇādicūrṇavarṇana (67 verses); (4) kāmoddīpakapākavarṇana or vājīkaraṇapākavarṇana (106 verses); (5) guṭikārasādivarṇana or vājīkaraṇarasādivarṇana (115 verses); (6) tailasekalepādivarṇana or dhvajavikāranāśakatailādivarṇana (94 verses); (7) napuṃsakakāraṇatvena pramehavarṇanam (76 verses); (8) napuṃsakatve kāraṇatvena upadaṃśaphiraṅgavarṇanam (56 verses); (9) uttamavājīkaraṇarasāyanayogavarṇana (66 verses).

Impotence (klaibya) is of seven main types (1.32): of mental origin (mānasa; 1. 34); caused by pitta, provoked by the excessive ingestion of substances of a pungent, sour and salty taste (1.35); caused by a deficient amount of semen (śukrakṣaya; 1.36); caused by the application of substances thought to increase the size of the penis (1. 37); caused by damage to the ducts transporting the semen (śirācheda; 1.38); caused by retention of the seminal discharge (vīryastambhanimitta; 1.39); of hereditary origin (janmaprabhṛti; 1.40). Other types are those finding their origin in damage to the semen (bījopaghāta; 1.45–47), damage to the penis (dhvajabhaṅga; 1.48–60), old age (jarā; 1.61–64), various types of weakness (kṣaya; 1.65–70), and bad habits (kukarman; 1.71–73). The opinion of Yūnānī physicians (yāvanīyamata) on the aetiology of impotence is briefly described, according to information derived from Caube who lived in Mathurā (1.74–79). The classification of sexual disorders, as found in the *Suśrutasaṃhitā*, is also incorporated (1.80–88). The characteristics of curable and incurable types

of impotence are mentioned (1.89–91). The varieties of śukradoṣa are described (1.92–98).

Chapter two describes the treatment of impotence. Drugs suitable to this end (vṛṣya) are of three types: śukrasrutikara (promoting ejaculation), śukravivardhana (increasing the amount of semen) and srutivṛddhikara (increasing the amount of ejaculated semen; 2.21).

Chapter three deals with powders (cūrṇa), chapter four with pākas, chapter five with pills (guṭikā) and rasas, useful for the treatment of impotence. Chapter six is concerned with oils (taila), fluids (seka) and unguents (lepa) suitable to the same purpose.

Chapter seven describes prameha, a disease leading to impotence, and the treatment of this disorder. The verses on the aetiology, symptoms, etc., of prameha are related to those found in the *Mādhavanidāna*.[196]

Chapter eight deals with upadaṃśa and phiraṅga as causes of impotence, and the treatment of these diseases. The verses on upadaṃśa may be from the *Mādhavanidāna* again,[197] while those on phiraṅga are from the *Bhāvaprakāśa*.[198]

Chapter nine contains some formulae for vājīkaraṇa and rasāyana purposes.

Some recipes are ascribed to particular authorities: the Aśvins (2.70–72: mahāsugandhitaila; 9.39–50: mahākalkarasa), Dhanvantari (3.33–38: kāmadevacūrṇa), Vṛkodara (= Bhīma; 2.57–58: a rasālā), and a maternal uncle of the author, called Keśavānanda (8.34–42: uśavāvaleha).

The treatise was completed in 1908/09 (9.65).

NAVAPARIBHĀṢĀ by Upendranāthadāsa.[199]

NAYANĀNANDABODHANĪ by Kālīcaraṇa, son of Rāmanidhi.[200] This work deals with the treatment of eye diseases.

NIDĀNACIKITSĀHASTĀMALAKA[201] by Raṇajitrāya Desāī[202] is a textbook of pathology in nine chapters, partly in Sanskrit, partly in Hindī. The Sanskrit passages consist of quotations.

NITYOPAYOGIKVĀTHASAṂGRAHA by Badrīnārāyaṇa Śarmā.[203]
PĀCANA AND MUṢṬIYOGA, compiled by Nagendranātha Sena Gupta.[204]
PĀCANASAṂGRAHA, compiled by Haralāla Gupta.[205]

PADĀRTHAVIJÑĀNA by Satyanārāyaṇaśāstrin[206] is a work in prose on a number of philosophical concepts and their application in medicine. The concepts dealt with are: padārthatva (1–20), dravya (21–31), pṛthvī (31–34), jala (34–35), tejas (35–37), vāyu (37–38), ākāśa (39–40), kāla (40–42), diś (42–44), guṇa (44–51), rūpa (51–54), rasa (54–56), sparśa (56–58), saṃkhyā (58–61), parimāṇa (61–64), pṛthaktva (64–65), saṃyoga (65–69), vibhāga (69–75), paratvāparatva (75–78), buddhi (78–83), svapna (84–103), vidyā (103–146), pratyakṣa (146–168), and anumāna (168–192).

Authorities and works quoted or referred to are: Annaṃbhaṭṭa's *Tarkasaṃgraha* (52, 106, 173, 174, 175, 177, 184), *bauddhagrantha* (122), bauddhāḥ (121, 131, 141), *Bharadvājasaṃhitā* (16), *Bhāṣya* (4, 121, 187, 191),[207] Bhūṣaṇakāra (10),[208] Cakra(pāṇi) (17, 47), Caraka (15, 16, 18, 20, 109, 114),[209] Cintāmaṇi(kṛt) (129, 172, 173, 177),[210] Darpaṇakāra (9),[211] Dharmarājādhvarīndra's *Vedāntaparibhāṣā* (107),[212] Dīdhitikṛt (101),[213] *Dinakarī* (50),[214] *Ekākṣarakoṣa* (9),[215] Gadādhara(bhaṭṭa) (5, 98),[216] Gaṅgādhara (45),[217] Gautama or Gotama (5, 8, 19, 81, 115, 116, 171, 190, 191), Hari (4), Jagadīśa's *Śabdaśaktiprakāśikā* (112),[218] *Jalpakalpataru* (46),[219] Jaṭādhara (19), Jayantabhaṭṭa's *Nyāyamañjarī* (116, 134, 135, 137, 138, 140, 168, 169, 181, 182),[220] Kaṇāda's *Vaiśeṣikasūtra* (4, 11, 103, 104),[221] *Kaṇādarahasya* (52),[222] Kapila (19),[223] *Kārikā* (10),[224] *Kārikāvalī* (52),[225] kavayaḥ (3), *Kāvyaprakāśa* (7),[226] *Madhyamikakārikā* (124),[227] mādhyamikāḥ (121, 122, 131), *Mādhyamikavṛtti* (124),[228] *Mahābhārata* (166), *Maharṣisūtra* (192),[229] *Mañjūṣā* (3),[230] mīmāṃsakāḥ (6, 7, 9, 10, 18, 105, 111, 147, 152, 175, 176), Nāgeśadīkṣita (2),[231] naiyāyikāḥ (6, 7, 8, 9, 19, 57, 109, 147, 186), navīnāḥ (169), navyāḥ (4, 20, 39, 52), navyanaiyāyikāḥ (17), Nīlakaṇṭha's commentary on the *Mahābhārata* (165, 166), *Nyāya(darśana, -sūtra)* (19, 31, 78, 94, 108, 186),[232] Nyāyalīlāvatīkṛt (107),[233] *Nyāyasiddhāntamañjarī* (6),[234] Pañcadaśīkṛt (164),[235] Pāṇini (5), pātañjalāḥ (109), Patañjali (15, 20–21, 44),[236] Prabhākara (10, 11, 106),[237] prābhākarāḥ (108), prācīnāḥ (174), Prāñca (2, 52, 53), Praśastapāda's *Bhāṣya* (very often),[238] *Rāmāyaṇa* (150), Śālinātha's *Prakaraṇapañcikā* (106),[239] *Sāṃkhya* (78, 114, 167), sāṃkhyāḥ (18, 161, 164), Sāṃkhyatattvakaumudīkṛt (163, 165, 166),[240] Śaṃkaramiśra (11, 30, 41, 68, 106),[241] *Sāramañjarī* (7),[242] saugatāḥ (121, 135), sautrāntikāḥ (121, 129, 130), Śiromaṇi (101),[243] Śrīdhara's *Nyāyakandalī* (61, 68, 74, 82, 87, 106, 133, 141, 170),[244] śruti (93, 94), Sūktikāra (49),[245] Suśruta (15), *Sūtra* (188, 189, 190, 192), Sūtrakṛt (170, 178, 190, 191), *Tarkāmṛta* (52),[246] Udayana's *Kiraṇāvalī* (11, 38, 40, 42, 61, 64, 69, 80, 81, 86, 96, 101, 104, 106),[247] *Upaskāra* (42, 46),[248] Vācaspatimiśra (5),[249] Vahniveśa (16, 46),[250] vaibhāṣikāḥ (121, 130, 131), *Vaiśeṣika(sūtra)* (11, 17, 31, 77, 103, 104, 108),[251] vaiśeṣikāḥ (17, 19, 20, 46, 47, 57, 109), vaiyākaraṇāḥ (3, 5, 9), Vardhamānopādhyāya's *Kusumāñjaliprakāśa* (42, 164),[252] Vātsyāyana's *Bhāṣya* (82, 183),[253] Vedānta (20, 124), vedāntinaḥ (89, 93, 147, 158, 164), Viśvanātha's[254] (33, 171, 184, 190, 191) *Kārikā* (40, 66), *Muktāvalī* (1, 4, 9, 11, 27, 31, 32, 40, 104, 105, 109, 114, 143, 145, 146, 174), *Saṃgraha* (44), and *Vṛtti* (184, 187, 191), vṛddhāḥ (111), Yaśomitra (129),[255] *Yogabhāṣya* (157), Yogācāra (97, 124, 129), yogācārāḥ (121, 123), and *Yogasūtra* (12, 148).

PAÑCABHŪTAVIJÑĀNA by Upendranāth Dās.[256]

PAÑCALAKṢAṆANIDĀNA by Duraisvāmin Aiyaṅgār.[257]
PARIBHĀṢĀPRABANDHA by Jagannāthaprasāda Śukla.[258]

This treatise, written in Sanskrit and Hindī, consists of fifteen chapters (prakaraṇa). Subjects dealt with are: weights and mesures, pharmaceutical preparations, groups of drugs, prepared dishes, actions of drugs, the saṃskāras of rasaśāstra and other alchemical subjects, pañcakarman, etc.

PRAMEHACIKITSĀMAṆI by P. Rāmacandra Rāvu.[259]

PRAMEHADUḤKHABHAÑJANA, compiled by Sītārāma Jośī, son of Gopīrāma.[260]
PRĀṆATOṢAṆA by Gaṇapatiśāstrin.[261]

PRATĀPAKAṆṬHĀBHARAṆA[262] by Kavirāja Pratāpasiṃha,[263] in 602 verses, is a work consisting mainly of maxims relating to a virtuous way of life; part of the verses are on svasthavṛtta.

PRATYAKṢAŚĀRĪRA[264] by Gaṇanāthasena[265] is an illustrated textbook of modern anatomy in Sanskrit prose.[266] Numerous new technical terms, coined by the author, are found in this work.

The *Pratyakṣa(śārīra)* is quoted in Gaṇanāthasena's commentary on his own *Siddhāntanidāna.*

PRIYANIGHAṆṬU[267] by Priyavrata Śarman[268] is a work on the names and properties of a large number of medicinal plants. Noteworthy are the descriptions of plants found in this treatise. The 638 verses, composed by the author himself, are couched in an elegant Sanskrit. The work is divided into four chapters (varga): harītakyādivarga (251 verses; 115 items), pippalyādivarga (80 verses; 38 items), śatapuṣpādivarga (213 verses; 114 items), and dravyādivarga (94 verses). Chapter four does not describe drugs, but deals with the basic concepts of pharmacology and defines a series of actions of drugs. The botanical name of each plant described has been added by the author.

Noteworthy items are: ākārakarabha (3.52),[269] arkaparṇī (2.29),[270] aśvagola (3.64),[271] bhūdugdhikā (3.127),[272] dārusitā (1.88–91),[273] dvīpāntaravacā (3.51),[274] gorakṣa (1.215),[275] gorakṣagañjā (3.87),[276] haimavatī (3.48),[277] jayapāla (3.60),[278] karañjadvaya[279] and -traya[280] (1.214), kṛṣṇabīja (3.63),[281] kulañjana (3.49–50),[282] māyāphala (3.80),[283] nāhī (3.138),[284] nālukā (1.88–91),[285] two types of pañcatikta (1. 183–184), parṇayavānī (3.17),[286] pūtihā (3.23),[287] sadampuṣpā (3.211),[288] somakalpa (3.129),[289] svarṇapattrī (3.62),[290] tuvaraka (1.132),[291] vacācatuṣṭaya (3.44),[292] vanatrapuṣikā (3.212),[293] and yavānītritaya (3.16).[294]

The *Priyanighaṇṭu* is quoted in the auto-commentary on the author's *Dravyaguṇasūtra.*

PŪTANĀŚĀNTI by Śivamaṅgala Dvivedin.[295]
RĀJAYAKṢMĀ by Viśveśvaradayālu Vaidyarāja.[296]

RĀMANIDĀNA or *Rāmarddhisāra* by Rāmalāla.[297] This treatise deals with nidāna in 712 verses. The author was a Jain monk, living in Bīkāner, and belonging to the Jinadattasūri śākhā of the Kharataragaccha; he was a pupil of mahopādhyāya Dharmaśīla.[298]

ROGAVINIŚCAYA by Yāminībhūṣaṇa Rāya.[299]

ROGIMṚTYUVIJÑĀNA by Mathurāprasāda Dīkṣita,[300] a treatise on ariṣṭas (signs indicating the approach of death in a patient).

The work is divided into ten chapters (adhyāya): (1) sixty-four verses on generalities concerning ariṣṭas (3–14) and ariṣṭas pertaining to observations of the physician; (2) twenty-four verses on ariṣṭas pertaining to experiences of the patient; (3) fifty-seven verses on inauspicious dreams and changes in the chāyā; (4) thirty-seven verses on various ariṣṭas; (5) forty-five verses on various ariṣṭas; (6) eighteen verses on ariṣṭas indicating that the patient will die very soon; (7) twenty-seven verses on ariṣṭas indicating death within a specified period of time; (8) fifteen verses on omina relating to the messenger; (9) thirteen verses on omina occurring on the way of the physician to the patient's house and on entering it; (10) thirty-two verses on auspicious dreams.

Sources mentioned are Caraka, Suśruta, Vāgbhaṭa, and the *Bhāvaprakāśa* (1.2).

SAṂJÑĀPAÑCAKAVIMARŚA by Gaṇanāthasena.[301] The author discusses in this work the meaning of the terms (1) peśī and snāyu, (2) kalā, (3) sirā and dhamanī.

ŚĀRĪRAPARIBHĀṢĀ by Gaṇanāthasena.[302]

ŚĀRĪRATATTVADARŚANAṂ NĀMA VĀTĀDIDOṢAVIJÑĀNAM by Puruṣottam Śāstrī Hirlekar and Harihar Śarmā.[303]

ŚARĪRAVIJÑĀNA, compiled by Niśikānta Vaidya Śāstrin.[304]
SARVAUṢADHIPADĀRTHADARPAṆA, compiled by M. Vīrayyasiddhāntin[305].

ṢAṬKARMAŚĀSTRA by Jagadīśācārya.[306]

This interesting treatise, in Sanskrit sūtras, accompanied by a Sanskrit commentary, deals with six basic therapeutic procedures.

The work is divided into sixteen chapters (mayūkha): (1) karmasaṃkhyāvijñānīya (14 sūtras); (2) trividhadoṣāpattivijñānīya (34 sūtras); (3) pūrvakarmavijñānīya (26 sūtras); (4) sarvakarmavidhivijñānīya (53 sūtras); (5) sarvakarmakramavijñānīya (11 sūtras); (6) samyaksnigdhatvādilakṣaṇavijñānīya (32 sūtras); (7) sarvakarmavyāpattaccikitsāsūtravijñānīya (12 sūtras); (8) karmayogyāyogyavijñānīya (19 sūtras); (9) snehabhedasnehanavidhivijñānīya (40 sūtras); (10) svedanabhedasvedanavidhisūtravijñānīya (19 sūtras); (11) vamanavirecanadravya-tadvidhāna-vega-bala-śuddhi-virecanabhedavijñānīya (35 sūtras); (12) prāṇasvarūpabastikarmavijñānīya (71 sūtras; this chapter is the mayūkharāja); (13) nasyakarmavijñānīya (18 sūtras); (14) raktamokṣaṇabhedatadvidhānavijñānīya (16 sūtras); (15) uttarabastivijñānīya (19 sūtras); (16) sarvakarmāśeṣavidhividhānayogādivijñānīya (108 sūtras; this chapter is the mahāmayūkha).

Chapter one defends the unorthodox thesis that not five, but six basic therapeutic procedures should be recognized: vamana (emesis), virecana (purgation), nasya (the application of errhines), anuvāsana (oleaginous clysters), nirūhaṇa (non-oleaginous clysters), and visrāvaṇa (bloodletting). The view that the five procedures, usually called pañcakarman, are sufficient is rejected. The author also refutes the opinion that pañcakarman consists of vamana, virecana, basti, nasya and raktamokṣaṇa, because this would imply that anuvāsana and nirūha have the same effects. A third theory,

holding that snehana, svedana, virecana, basti and visrāvaṇa constitute pañcakarman, is just as little acceptable, because snehana and svedana belong to pūrvakarman, i.e., procedures preceding those belonging to pañcakarman.

Chapter two deals with the following topics: ṣaṭkarman should only be resorted to when laṅghana, followed by dīpana and pācana, have proved unsuccessful (2.2–4); ṣaṭkarman is effective against sroto'varodha (blockage of channels) (2.5), the essential feature of which is khavaiguṇya (2.6); kha (= ākāśa) is never subject to disorders, due to its subtleness (saukṣmya) (2.7); khavaiguṇya is actually caused by the paramāṇus of the other four mahābhūtas, mixed with those of kha; khavaiguṇya is therefore an upalakṣaṇa and denotes a svadharmakarmavaiguṇya of the channels (srotas) (2.8); khāvarodha is therefore essentially sroto'varodha (2.9); the finest channels are called caramasrotas (2.10); an intermediate group, called madhyasrotas, consists of the channels called keśikā,[307] sirā and dhamanī, together with those transporting lasīkā, rasa, śukra, sveda, pitta, mūtra, śvāsa, etc. (2.11–12); the big channel stretching from the lips to the anus is the mahāsrotas (tractus digestivus) (2.13); it is divided into seven parts: annanalikā (oesophagus), āmāśaya, grahaṇī, ubhayāntra (small and large intestine), malāśaya (rectum) and guda (anus) (2.14); the channel carrying śvāsa (tractus respiratorius) consists of: nāsā (nose), āsya (oral cavity), svarayantra (larynx), mahāśvāsapraṇālī (trachea), śvāsapraṇālī (bronchi), śvāsamandira (the alveoli), and śvāsakoṣṭha (the pleura) (2.15); the channel carrying mūtra (urine) consists of: mūtraponaka, mūtrakulyā (the tubuli), mūtrakoṣṭha, the two mūtragavīnīs (ureteres), mūtrāśaya (bladder), śiśna (penis), and śiśnaveṣṭana (prepuce) (2.16); the channel carrying śukra (seed) consists of: śukraponaka, śukrakulyā, śukrakoṣṭha, śukrapraṇālī (funiculus spermaticus or ductus deferens), śukrāśaya (glandula vesiculosa?), aṣṭhīlā (prostate), and śiśna (penis); in females, the yonikalās take the place of the śukrāśaya (2.17); the other channels are divided similarly (2.18); according to modern science, the structures called caramasrotas are the same as the chidras of the seven dhātus (2.19); this view is rejected (2.20–21); the development of sroto'varodha is discussed; the concept of vṛddhi of the doṣas is explained; excessive vṛddhi leads to sroto'varodha (2.22–24); local vṛddhi can be cured by means of laṅghana (2.25); prakopa and prasara are dealt with (2.26–27), followed by the circulation (caṅkramaṇa) of blood and rasa (2.28); sthānasaṃśraya is the stage in which the prodromes appear (2.29); vyakti is the stage in which the symptoms appear (2.30); saṃprāpti (2.31) and bheda (2.32) are discussed; neglect of these pathogenetic processes results in conditions necessitating treatments belonging to (ṣaṭ)karman (2.33–34).

Chapter three deals with: vamana and nasya are indicated in kapha disorders, virecana in pitta disorders, nirūhaṇa and anuvāsana in vāta disorders (3.1–3); the seats of kapha, pitta and vāta (3.4–7); the aim of (ṣaṭ)karman consists of the elimination of the doṣas after making them collect in the koṣṭha (3.8–13); the doṣas can only be brought to the koṣṭha in a fluid state (3.14); fluidity is brought about by svedana (3.15–16), but completion of this process requires snehana, which results in mārdava (softening), vighaṭana (breaking apart) and vilayana (liquefaction) (3.17–18); the dosis of sneha should be increased in disorders caused by blood (3.19–22); dīpana and pācana measures (3.23); the sneha used in snehana should always be prepared by mṛdupāka (3.24);

dīpana and pācana are, according to some, procedures belonging to pūrvakarman (3.25–26).

Chapter four is about general rules for dīpana, pācana, svedana, snehana, nirūha, anuvāsana and raktamokṣaṇa.

Chapter five gives a summary of the six procedures and their order.

Chapter six deals with: the signs indicating that the patient has properly been treated with snehana (6.1–2); the signs of inadequate and excessive snehana (6.3–4); the same groups of signs regarding svedana (6.5–7), vamana (6.8–11), virecana (6.12–14), the application of nirūhaṇa (6.15–17), anuvāsana (6.18–20), nasya (6.21–23), visrāvaṇa (6.24–26), uttarānuvāsana (6.27–29), and uttarāsthāpana (6.30–32).

Chapter seven is concerned with vyāpad. No conditions called vyāpad arise due to dīpana and pācana (7.1). The vyāpads of snehana are enumerated and their treatment is discussed (7.2–3), followed by those of svedana (7.4–5), vamana and virecana (7.6), nirūha (7.7), anuvāsana (7.8), nasya (7.9), visrāvaṇa (7.10), and uttarabasti (7.11). The last sūtra deals with the relationships between the vyāpads and the doṣas (7.12).

Chapter eight discusses indications and contra-indications for shehana, etc.

Chapter nine deals with: dīpanapācana is of two kinds: external (bāhya) and internal (ābhyantara) (9.1); the external type consists of vyāyāma, dhāvana (running), etc., the internal type of kṣāras (caustics), lavaṇas (salts), and all procedures which rouse pitta (9.2–3); snehas are either sthāvara or jaṅgama (9.4); the sthāvara snehas are oils from various plants, the jaṅgama ones consist of ghee, milk, dadhi, fresh butter, muscle fat, and bone marrow (9.5–6); seeds, etc., are the sources of oils (9.7); oils should be administered in the rainy season, ghee in the autumn, muscle fat and bone marrow in the month of Mādhava (9.8); the relationships between these fatty substances and the doṣas (9.9); ghee, and medicines prepared with it, are the very best (9.10); yet, when vāta is very strong, an oil is to be prescribed, etc. (9.11); or, as an alternative, a ghee, etc., prepared with drugs counteracting vāta, etc. (9.12); these snehas should be administered when it is neither too hot nor too cold (9.13); or, when the weather is hot, during the night, and, when the weather is cold, during the day; a sneha has to be administered when the sky is cloudless (9.14); disorders arising when these rules are not observed (9.15–16); a yūṣa should be drunk after the administration of an oil, tepid water after a ghee, a peyā should be given after the administration of muscle fat, a maṇḍa after bone marrow (9.17); or, after a sneha of whatever type, tepid water should be drunk, not once, but repeatedly (9.18); cold water is the required drink (anupāna) after the oil of tuvaraka or bhallātaka (9.19); the dose of the sneha depends on the activity of the digestive fire; three grades are distinguished: persons digesting the sneha within six, twelve or twenty-four hours (horā) have a sluggish, moderately active or keen fire (9.20); the required doses are half a pala, three quarters of a pala, and a pala respectively (9.21); the smallest dose is the best one (9.22); the treatment should be continued for three, five or seven days, depending on the type of koṣṭha of the patient: mṛdu, madhya or krūra (9.23); snehana is of two types: internal or external (9.24); the internal type consists of acchapeya and vicāraṇā (9.25); the external type consists of lepa, abhyaṅga and udvartana (9.26); the physicians of Kerala add pādāghāta as a fourth type (9.27);[308] one dose is drunk in acchapeya (9.28); taking a sneha together with boiled rice or other

substances is called vicāraṇā (9.29); twenty-four varieties of vicāraṇā can thus be distinguished (9.30); vicāraṇā is suitable to those disgusted by a pure sneha (9.31); doses which are too small or too large should be avoided (9.32); a sneha to which a salt has been added acts quickly (9.33); the sneha is not yet digested when the eructations are smelling (9.34), but digested when they are devoid of smell (9.35); when the procedure leads to a very strong activity of the digestive fire, the patient should only drink cold water; otherwise, he would die (9.36); a ghee should never be given pure, but always prepared (with drugs) (9.37–38); even a prepared ghee should never be prescribed in a pitta disorder (9.39); such a disorder requires a combination of two, three or four kinds of sneha (9.40).

Chapter ten deals with: the two groups of sveda: with the help of fire (agnisveda) or without it (10.1); the ten types of sveda without the use of fire: vyāyāma (physical exercise), uṣṇagṛha (a warm room), gurupāvaraṇa (warm clothing), kṣudhā (hunger), bhaya (fear), krodha (anger), āhava (fighting), ātapa (the warmth of the sun), bahupāna (drinking much), and upanāha (poultices) (10.2); these types are suitable to delicate persons and when pitta disorders are present (10.3); sveda by means of fire consists of tāpa-, upanāha-, drava-, ūṣma-, and bāṣpasveda (10.4); tāpasveda is divided into prastara- and saṃkarasveda (10.5); the materials to be used for the piṇḍas of tāpasveda in disorders caused by kapha and vāta (10.6); the materials for upanāhasveda and its technique (10.7); dravasveda, consisting of avagāha and pariṣeka, is indicated in disorders where pitta predominates, in combination with either vāta or kapha (10.8); the types of ūṣmasveda are: holāka-, kūpa-, kuṭī-, karṣu-, and jentākasveda (10.9); the types of bāṣpasveda are: nāḍī-, kumbhīka-, aśmaghana-, and bhūsveda (10.10); the fourteen types of agnisveda are indicated in vāta and kapha disorders (10.11); sveda may be applied to the whole body or a part of it (10.12); sveda is either rūkṣa or snigdha; rūkṣasveda, carried out by means of heated stones, sand, etc., is indicated in kapha disorders; snigdhasveda, consisting of prastarasveda, avagāha, etc., is indicated in vāta disorders (10.13); when a doṣa has moved to the seat of another doṣa, the doṣa normally seated there should be counteracted first, subsequently the doṣa that has moved (10.14); sveda is of three types, divided into strong, moderate and weak sveda (10.15); weak sveda should be applied to the testicles, eyes and cardiac region (10.16); moderate sveda may be applied to the region of the groins (10.17); strong sveda or any degree required may be applied to other places (10.18). The chapter ends with a quotation from the *Carakasaṃhitā*.

Chapter eleven deals with: virecana as a term covering both vamana and virecana sensu stricto (11.1); drugs belonging to the madanaphalādigaṇa are used as emetics (11.2), those belonging to the trivṛdādigaṇa as purgatives (11.3); the properties on which their effects are based (11.4); fire and air predominate in emetics, water and earth in purgatives (11.5–6); drugs which are of the nature of all four elements act both ways (11.7); emetics should be given together with honey and salt; tepid water, mixed with liquorice juice, is the appropriate anupāna (11.8); drugs to be prescribed when the usual emetic does not work (11.9); three grades of purification by means of emesis are distinguished, characterized by eight, six and four bouts (vega) of throwing up (11.10); their effects on the patient's strength (11.11); specifications regarding the three grades: the eight bouts consist of four bouts connected with kapha, two with pitta and two with vāta; the six bouts consist of four connected with kapha and two with pitta; the four bouts are only kapha bouts (11.12); the highest grade (pradhānaśuddhi), as it has been described, is indicated when a large amount of doṣas is involved (11.13); pradhānaśuddhi is reached in cases with a moderate amount of doṣas by means of six bouts; three of these are connected with kapha, two with pitta and one with vāta (11.14); similarly, pradhānaśuddhi is reached in cases with a small amount of doṣas by means of four bouts; two of these are connected with kapha, and one each is connected with pitta and vāta; this series of four bouts should not be confused with the lowest grade of the standard series (11.15); with respect to the three grades, the amount thrown up should be two prastha, one prastha, and half a prastha respectively (11.16); specifications regarding the middle and low grades of purification in cases with a large, moderate and small amount of doṣas (11.17); the effects on the patient's strength of all these distinct types (11.18); the gradations of the procedure have thus been described (11.19); an increase of temperature (tāpa), caused by excitement of pitta, is characteristic of the arrival of a bout of vomiting (11.20); madanaphala is the best emetic (11.21); preparations to be administered prior to the emetic (11.22); the emetic should be given on an empty stomach; the patient may only take some yavāgū or ghee (11.23); the morning is the most suitable time (11.24); an emetic works without being digested; for that reason one should give a second dose when the effect is not quickly produced (11.25); however, this second dose should not be administered until the first one has been digested (11.26); the patient should fast for some time when the dose proved to be too small (11.27); purgation is indicated when the dose was too large (11.28); the drugs suitable to be used for purgation; they should be given about noon (11.29); complete purification will be reached after thirty, twenty or ten bouts, dependent on the three grades (11.30); as a result, the temperature will drop, due to the decrease of pitta (11.31); the amount of doṣas expelled should be four, three or two prastha (11.32); this purgation is of four types: anulomana, sraṃsana, recana or bhedana (11.33); persons who are krūrakoṣṭha are not easily purged and should be given an anuvāsana (11.34); purgatives suitable to delicate persons (11.35).

Chapter twelve, a long one, is called mayūkharāja because it deals with basti, which is the chief one among the six basic procedures (12.1): basti consists of the application of decoctions, oils, etc., by way of the anus, vagina or urethra (12.2); a basti is called thus because the bladder (basti) of an animal is used in this procedure (12.3); basti is of three types, according to the three ways of administration (12.4); it is of two types according to the fluid used: a basti with a decoction (kaṣāya) is a kaṣāyabasti, nirūha or āsthāpana, a basti with a fatty substance is a snehabasti or anuvāsana (12.5); three types are distinguished according to the dose; a mātrābasti contains a prasṛta of a fatty substance, an anuvāsana three prasṛta; a nirūha contains twelve prasṛta of a decoction (12.6); six types are distinguished according to the effect aimed at: utkleśanabasti, lekhanabasti, śodhanabasti, śamanabasti, bṛṃhaṇabasti, vṛṣyabasti, rasāyanabasti, and śukrastambhanabasti; they should be administered in the mentioned order; a stambhanabasti is also indicated in cases of atīsāra, raktātīsāra, and the downwards moving type of raktapitta (12.7); a śamanabasti is vāta-, pitta- or kaphaśamana (12.8); basti is

of nine types according to the place of the body where a disorder is located: śiro-, pārśva-, pṛṣṭha-, udara-, uro-, kaṭi-, guda-, yoni-, and mūtrabasti (12.9); apart from the last three, these bastis are of the snehabasti type (12.10); the last three may be either of the anuvāsana or of the āsthāpana type (12.11); in children up to the twelfth year the dose of a nirūha increases by half a prastha each year, beginning with half a prastha in the first year (12.12); subsequently, the dose increases with one prastha each year up to the eighteenth year of life (12.13): the appropriate dose for persons older than seventy is the same as that for those sixteen years old, i.e., ten prasṛta (12.14); the dose of an anuvāsana is always one quarter of that of a nirūha (12.15); the dose of a mātrābasti varies in the same way as that of an anuvāsana (12.16); the rule for the ratios of the ingredients of a nirūha; this rule does not apply to a kṣīrabasti (12.17); the fluids in a mādhutailikabasti are a quarter less in amount; its dose consists of nine prastha (12.18); the ratio of the fatty substance in a nirūha varies according to the doṣa mostly involved in the disorder (2.19); the ratio of the honey varies inversely (12.20); the remaining ingredients do not vary (12.21); the salt should be ground, mixed with the honey, and then added to the fatty substance (12.22); after this, one should add the decoction, subsequently the guḍa and the kalka, then stir the mixture with a churning stick (khaja) (12.23); one should fill the pouch with the tepid or warm mixture, lubricate the tube, and introduce it (12.24); the patient should lie on his left side (12.25), stretch his left leg and pull up his right knee (12.26), while breathing slowly (12.27); sneezing, hiccupping and coughing should be suppressed (12.28); the fluid should not be introduced hurriedly (12.29); a remnant should be left in the pouch in order to prevent that air is compressed inside (12.30); breaking of the fluid will not take place when it has properly been stirred (12.31); abhyaṅga and svedana of the belly are indicated when air has got inside (12.32); the physician should press the buttocks of the patient after administration of a clyster; the patient should pull up both knees and then stretch his legs five to seven times (12.33); a nirūha should remain inside for a muhūrta (12.34); an anuvāsana should remain twice to four times as long (12.35); after elimination of the fluid, the anal region should be sprinkled with tepid water (12.36); when the remnant has not come out at the proper time, a purgative clyster should be given (12.37); the patient should bathe and take some food; the type of food that is appropriate depends on the main doṣa involved (12.38); the ratios of the ingredients in an anuvāsana (12.39); an anuvāsana should be administered in the evening, after a light midday meal has been digested (12.40); the proper amounts of salt and decoction should be taken (12.41); too much of the decoction will make the fluid come out too soon; too much salt will give rise to a burning sensation and diarrhoea (12.42); disorders brought about when the fluid is too warm, too cold, or too much irritating (tīkṣṇa) (12.43); disorders arising when the fatty fluid has not properly been boiled (12.44); a cold clyster is indicated in diseases caused by pitta (12.45); requirements for the couch (12.46); a mātrābasti for bṛṃhaṇa purposes should be given daily; other types are to be administered according to what is taught about them, dependent on the specific circumstances (12.47); periods of time suitable to the administration of an anuvāsana (12.48); the intervals should be twice as long as for a nirūha (12.49); things to be avoided by the patient during the course of treatment (12.50): the success of the treatment depends on a proper consideration of the doṣa(s) involved, the qualities and actions of the drugs used, etc. (12.51); one or three anuvāsanas are required in disorders caused by kapha, five or seven in those caused by pitta, nine or eleven in those caused by vāta (12.52); the specific effects of the first to ninth anuvāsana (12.53); in cases of śukradoṣa the number of anuvāsanas should be doubled (12.54); causes for failure of the treatment (12.55–57); requirements for the pouch (12.58); substitutes for the leather of the pouch (12.59); nowadays, rubber is used for the pouch and iron for the tube (12.60);[309] the tube may also be made from gold and other metals (12.61); requirements for the tube (12.62–63); the dimension of the tube when employed for the administration of a clyster to children of various ages (12.64–65); the tube should possess three bulbous protrusions (karṇikā) (12.66); two karṇikās serve to fasten the tube to the pouch; one karṇikā, in the middle, prevents the introduction of too long a part of the tube (12.67); the dimensions of the opening in the tube (12.68); defects of the opening (12.69); defects of the pouch to be avoided (12.70). The chapter ends with two verses in praise of basti.

Chapter thirteen deals with: the three types of nasya: śodhana-, bṛṃhaṇa- and śamananasya (13.1); the difference between the types called pradhamana and avapīḍana (13.2); the differences between a rūkṣa and a snigdha nasya; the former consists of a powder, the latter of a fatty substance in which drugs have been boiled (13.3); disorders with a large amount of doṣas, particularly kapha, require pradhamana with a rūkṣa and śodhana powder (13.4); vāta disorders require a snigdha nasya (13.5); nasyas are of three types according to the dose employed: bindumātra, pratimarśa and marśa; their doses are one bindu (drop), two bindu, and six to a hundred bindu respectively (13.6); a bindumātra is given once, a pratimarśa twice, a marśa three times daily (13.7); the period of time for the administration depends on the main doṣa involved: the morning in case kapha, the afternoon in case pitta, the evening in case vāta is involved (13.8); the proper season depends on the same type of considerations (13.9); rules for a śodhana nasya (13.10); the proper position of the patient (13.11); the ways of administering a powder and a fluid (13.12); a nasya may be given during the night when a doṣa has extremely increased (13.13); the number of drops should be eight, six or four, dependent on the strength of the patient (13.14); a nasya should not be given to children under eight years of age (13.15), neither to persons older than eighty (13.16); Suśruta's rules for the use of pratimarśa in the healthy (13.17); the sneha for a nasya should be prepared by madhyapāka (13.18).

Chapter fourteen deals with: the five types of bloodletting:[310] by means of a horn (śṛṅga), leeches, or a gourd (alābu), scarification (pracchāna) by means of a lavitra,[311] and phlebotomy (14.1); these methods are indicated in disorders by vāta, pitta and kapha, in local disorders due to the three doṣas, and in general disorders respectively (14.2); the amount of blood to be drawn in vāta, pitta and kapha disorders (14.3); alternatively, all the doṣas may be eliminated by each of the methods mentioned (14.4); the maximum amount that may be drawn by each of the methods (14.5); the etymology of jalaukas (leech) (14.6); the names of the six poisonous and the six non-poisonous leeches (14.7); the way of drawing blood by means of leeches (14.8); the signs indicating that leeches have completed sucking corrupted blood (14.9); sprinkling with salt makes a leech let go (14.10); one should make the leeches vomit

the corrupted blood ingested; otherwise, they would develop the disease called raktamada (14.11); the wound should be treated with śatadhautaghṛta[312] (14.12); sprinkling cold water over it will help when the bleeding does not stop (14.13); bloodletting is difficult in cold weather (14.14); warm weather leads to profuse bleeding (14.15); bloodletting should therefore be avoided under these circumstances (14.16).

Chapter fifteen deals with: uttarabastis are generally snehabastis (15.1–2); the nirūha type is also used (15.3); the suitable position for a male patient (15.4); an āsthāpana should precede an uttarabasti (15.5); the bladder should be emptied (15.6); the patient should bathe and take as food either a broth or milk (15.7); the suitable position for a female patient (15.8); the dose is half a prasṛta when the patient is eighteen years (or older), a quarter of a prasṛta when the patient is twelve (15.9); the dose for a vaginal uttarabasti is a prasṛta (15.10); it should not be used in children (15.11); a vaginal uttarabasti should be administered when the menstrual period has ended (15.12); requirements for the tube for a vaginal uttarabasti (15.13); requirements for the tube for an urethral uttarabasti in adults (15.14) and in children (15.15); the lengths of the tube for males, females and children (15.16); the dimensions of the opening (15.17); the tube should possess a karṇikā (15.18); the amounts of decoction and fatty substance to be used (15.19).

Chapter sixteen, the mahāmayūkha, deals with: the explanation of the title mahāmayūkha (16.1); rules for the treatment of vāta diseases (16.2); lepa (16.3); abhyaṅga (16.4); udvartana (16.5); pādāghāta (16.6); sadyaḥsnehana (16.7); śirobasti (16.8); pṛṣṭha-, pārśva-, uro-, kaṭi-, and udarabasti (16.9); śirodhārā (16.10); takradhārā (16.11); dhānyāmladhārā (16.12); karṇapūraṇa (16.13); āścyotana (16.14); gaṇḍūṣa (16.15); añjana (16.16); nasya (16.17); saṃkarasveda (16.18); snigdhataralapiṇḍasveda (16.19); ṣaṣṭiśālipiṇḍasveda (16.20); godhūmapiṇḍasveda (16.21); śālvaṇapiṇḍasveda (16.22); pattrapiṇḍasveda (16.23); prastarasveda (16.24); upanāhasveda (16.25); pattropanāhasveda (16.26); śālvaṇopanāhasveda (16.27); avagāhasveda (16.28); pariṣekasveda (16.29); snehadhārāsveda (16.30); holākoṣmasveda (16.31); kūpoṣmasveda (16.32); kuṭīsveda (16.33); karṣusveda (16.34); jentākasveda (16.35); nāḍīsveda (16.36); kumbhīkasveda (16.37); aśmaghanasveda (16.38); bhūsveda (16.39); anagnisveda (16.40); vamana (16.41); virecana (16.42); bastikrama (16.43); utkleśanabasti (16.44); lekhanabasti (16.45); śodhanabasti (16.46); śamanabasti (16.47); bṛṃhaṇabasti (16.48); vṛṣyabasti (16.49); śukralarasāyanabasti (16.50); śukrastambhanabasti (16.51); vājīkaraṇabasti (16.52); picchābasti (16.53); balyapicchābasti (16.54); grāhibasti (16.55); vandhyātvaghnabasti (16.56); madhutailabasti (16.57); yuktarathabasti (16.58); siddhabasti (16.59); guḍūcīsiddhabasti (16.60); yāpanabasti (16.61); kṣīrabasti (16.62); śītabasti (16.63); vātaghnabasti (16.64); kuṣṭhaghnabasti (16.65); kṛmighnabasti (16.66); mūtrakṛcchraghnabasti (16.67); anuvāsanabasti (16.68); mātrābasti (16.69); anuvāsanārhaśaṭyāditailas (16.70); āsthāpanatailas (16.71); sarvarogahararāsnāditailas (16.72); vātādighnabasti (16.73); yathākālabalabasti (16.74); uttarānuvāsanāsthāpana (16.75); snehabhāga in nirūhaṇa (16.76); taikṣṇyakṛddravyas (16.77); mārdavakaradravyas (16.78); pradhamananasya (16.79); bṛṃhaṇanasya (16.80); svarasanasya (16.81); avapīḍanasya (16.82); saṃjñāprabodhananasya (16.83); maricādinasya (16.84); bṛṃhaṇanasya (16.85); vairecanikadhūmranasya (16.86);

na copagiled asamarthaḥ (a nasya should not be swallowed) (16.87); raktamokṣaṇa (16.88); uttarabasti (16.89); picudhāraṇa (16.90); the preparation of odana (16.91), vilepī (16.92),[313] yavāgū (16.93),[314] sūpa (16.94),[315] śāka (16.95), yūṣa (16.96), kāmbalika (16.97), khaḍa (16.98),[316] saktu (16.99), peyā (16.100), and māṃsarasa (16.101); kṛtākṛtayūṣa (16.102); gandharvahastādigaṇa (16.103); kākolyādigaṇa (16.104); vidārigandhādigaṇa (16.105); āragvadhādigaṇa (16.106). Two concluding sūtras end this chapter and the whole treatise.

The treatise is said to consist of 527 sūtras.

The author, of Citraguptagotra, was a pupil of Raghunāthaśarman, Muralīdharamiśra and Lālacandravaidya; he resided at Mahiṣīgrāma.[317]

SIDDHABHAIṢAJYAMAÑJŪṢĀ[318] by Jayadeva Śāstrin[319] is a treatise that carries on the tradition of medical kāvyas, such as the works of Lolimbarāja. It shows the influence of Kṛṣṇarāma's *Siddhabheṣajamaṇimālā*, quoted in the commentary. The work is written in verses of various metres,[320] composed by the author himself.

The first volume (prakoṣṭha), the only one published, contains 634 verses, divided into four chapters (koṣṭhaka). Chapters two to four are subdivided into adhikāras.

Chapter one is of an introductory nature. Chapters two to four are devoted to the treatment of diseases, beginning with jvara and ending with apasmāra. The order adopted is that of the *Mādhavanidāna*. The modes of treatment described derive from āyurvedic treatises, works on rasaśāstra, Islamic medicine, and western medical textbooks.[321] Religious elements are also present in Jayadeva's therapy.[322] Sources are rarely quoted or referred to.[323]

The *Siddhabhaiṣajyamañjūṣā* is quoted in Gulrājśarmamiśra's commentary on the *Āyurvedaprakāśa* and Yādavjī Trikamjī's *Rasāmṛta*.

Some diseases described are known from late āyurvedic treatises, e.g., muktājvara (jvara 46, 48, 50, 53),[324] or have been borrowed from western medicine, such as āntrikajvara (jvara 46, 48),[325] daṇḍakajvara (jvara 72),[326] mastiṣkamūlāmaya (jvara 93),[327] sandhikajvara (jvara 72), śleṣmakajvara (jvara 56, 72),[328] and śvasanaka (jvara 55, 57, 72).[329] Another type of fever mentioned is masūrījvara (jvara 90). Terms borrowed from western medicine are jīvāṇu (micro-organism; jvara 55) and sūcīkriyā (injection; agnimāndya 51).

The materia medica presents a large number of unusual substances, found only in late medical treatises, or derived from Islamic, occasionally from western medicine.

Examples are: aileya (jvara 71),[330] akaravī (jvara 82), ālūvakhāraphala (tṛṣṇā 1),[331] aruṇamarica (agnimāndya 43),[332] bhīmasenākhyakarpūra (agnimāndya 19),[333] cāsakū (arśas 22),[334] chikkā (atisāra 47),[335] darūnaja (jvara 82),[336] gandhinī (hikkā 6),[337] gundrikā (raktapitta 5),[338] hāraśṛṅgāra (jvara 131; arśas 6),[339] hauṇī (arśas 20),[340] iṣīkāsnuhī (kāsa 5),[341] iśpagola (kāsa 18),[342] īśvarabola (atisāra 12 and 46),[343] jadavāraka (jvara 81),[344] jaharamoharā (jvara 82),[345] jaharāśman (tṛṣṇā 1),[346] jaitūnataila (jvara 68),[347] jānakīphala (apasmāra 14),[348] jūphā (jvara 125),[349] jūphikā (kāsa 20), kaharavā (arśas 39),[350] kalā (jvara 5 and 125),[351] kalaśora (pāṇḍuroga 11), kalasora (raktapitta 7),[352] kāsinī (jvara 125),[353] kattīra (atisāra 46),[354] khatamī (jvara 126; kāsa 17),[355] khubbājī (kāsa 17),[356] khūnakharābā (arśas 39),[357] kubera

(krimi 5),[358] kulaphā (rājayakṣman 29),[359] kunaina (jvara 36),[360] makhatūma (jvara 81), muremakkī (jvara 81),[361] papītā (jvara 81),[362] podī (agnimāndya 41),[363] podīna (chardi 1),[364] revatasitā (śvāsa 27),[365] rūmagundra (jvara 71),[366] sahasrasuma (arśas 4),[367] śāhatarā (jvara 126),[368] sanāmukī (arśas 8),[369] saudhāvāri (agnimāndya 40–46),[370] soḍāvāri (agnimāndya 2),[371] svādukhistā (raktapitta 13),[372] tamākhū (krimi 6),[373] tārpīnataila (jvara 68),[374] tīkṣṇapattra (tṛṣṇā 13)[375], unnābha (jvara 124; rājayakṣman 23),[376] vādāvarda (rājayakṣman 30),[377] vanapsā (jvara 16),[378] and viṣṇupadāmṛta (rājayakṣman 2).[379]

Some medicinal preparations are borrowed from Islamic or western medicine, for example, cāya (tea; jvara 35) and śārkara (atisāra 38; agnimāndya 29). Compound formulae derived from Islamic medicine are itrīphala (mūrchā 14), sikañjī (agnimāndya 3), and sulemānīlavaṇa (agnimāndya 10–11).

The last verses of the first prakoṣṭha mention the author's name, Jayadevaśarman,[380] and his residence, Rāmadurganagara, in Marupradeśa,[381] Rājasthān. The commentator adds numerous details on the author's genealogy: he was the younger of the two sons of Sāṃvalarāmaśarman;[382] his grandfather's name was Raghunātharāyaśarman. Jayadevaśarman was adopted by Caturbhujaśarman, a paternal uncle of his father, who instructed him in āyurveda and other sciences.[383] The author himself mentions two of his teachers, Śrīdatta and Nīlakaṇṭha; āyurveda was taught to him by Sāgara, i.e., Sāgaramallaśarman, and Śrīmaṇi, i.e., Maṇirāmaśarman.[384]

The *Siddhabhaiṣajyamañjūṣā* was completed in 1929/30.[385]

The Sanskrit commentary on the *Siddhabhaiṣajyamañjūṣā*, called *Kuñcikā*, was written by Hanumatprasāda.[386] The *Kuñcikā* gives synonyms of the names of medicinal substances, and in many cases the vernacular names as well; it explains how to prepare the compound drugs, etc. The metres of Jayadeva's verses and the alaṃkāras employed are also pointed out.

Works and authorities quoted or referred to are: *Atharvaveda* (rājayakṣman 2 and 3), Bhoja (rājayakṣman 1), Caraka (rājayakṣman 2), *Nighaṇṭuratnākara* (grahaṇī 11), *Rasendrasārasaṃgraha* (jvara 114; grahaṇī 13), *Ṛgveda* (rājayakṣman 2), Śārṅgadhara (jvara 13), *Siddhabheṣajamaṇimālā* (jvara 16–18 and 19; agnimāndya 39), *Siddhāntanidāna* (jvara 152), Suśruta (arśas 1), *Vaidyajīvana* (agnimāndya 27), and *Yogataraṅgiṇī* (jvara 115).

Occasionally, the names of vaidyas are mentioned who transmitted a particular formula: Kṣamāpativājapeyin,[387] (kāsa 26–27), Rāmaratnaśarman (śvāsa 26 and 27–28), and Śyāmalāla (jvara 97–98).

SIDDHĀNTANIDĀNA[388] was written by Gaṇanāthasena. This is a modern work in Sanskrit on the general principles of pathology, and on the aetiology and symptomatology of diseases. It is based on āyurvedic concepts, but has been influenced by western medicine in its nosology. The arrangement of the diseases has been inspired by the *Mādhavanidāna*. Only the first volume, on the basic concepts of pathology and on fevers, has been published. This first part of the work consists of 306 verses, arranged in four chapters.

Chapter one, doṣadūṣyādinirṇaya, begins with a maṅgala in praise of Viṣṇu and a stanza addressed to the author's father, Viśvanātha, who was his teacher in āyurveda. The remaining verses of chapter one (3–50) are on the doṣas and dūṣyas, their normal and their imbalanced state, the doṣas when accompanied by or devoid of āma, the signs of increase and decrease of the doṣas and dūṣyas, and the stages of the pathogenetic process. Chapter two (vyādhivijñāna; 15 verses) deals with the concepts of nidāna, pūrvarūpa, rūpa, upaśaya, and saṃprāpti, while chapter three (vyādhiparīkṣā; 11 verses) is concerned with the examination of a patient. Chapter four (230 verses) contains descriptions of a long series of fevers, partly taken from western medicine.

Sources are not referred to, but a number of verses have been taken from the *Mādhavanidāna* (or its sources)[389] and the *Suśrutasaṃhitā*.[390] The majority of the stanzas, however, have been composed by the author.

The *Siddhāntanidāna* is quoted in Priyavrat Śarmā's auto-commentary on the *Āyurvedadarśana* and in the same author's *Doṣakāraṇatvamīmāṃsā*, Rājeśvaradatta Miśra's *Svasthavṛttasamuccaya*, and the commentary on the *Siddhabhaiṣajyamañjūṣā*.

The rather elaborate commentary, called *Tattvadarśinī*, written by the author himself, does not mention the sources of the *Siddhāntanidāna*, but quotes from a number of works and authors: Bhāvamiśra (4.98 and 125), Caraka (passim), *(Bhagavad)gītā* (1.4), Kharanāda (4.177), Mādhava (4.127), *Nāgabhartṛtantra* (4.198), *Pratyakṣa(śārīra)* (1.13), *Sāṃkhyakārikā* (1.4), Śārṅgadhara (1.12; 4.225–226), Sudāntasena (1.19, 20, 21), Suśruta (passim), Vāgbhaṭa (passim), (Vijaya)rakṣita (4.198), and Vṛddhasuśruta (4.31).

Some types of fever, well known from āyurvedic texts, are equated with syndromes of western medicine: abhinyāsajvara (4.20–22): severe toxaemia or septicaemia; saṃtatajvara (4.186–188): malarial remittent fever; satataka (4.189): double quotidian fever; anyedyuṣka (4.195): quotidian fever; tṛtīyaka (4.195): tertian fever; caturthaka (4.195): quartan fever; pralepaka (4.206–207): hectic fever; bṛhanmasūrikā (4.129–147): smallpox; laghumasūrikā (4.148–159): chicken pox; romāntikā (4:160–170): measles; karṇamūlakajvara (4.175–177): mumps; ślaipadikajvara (4.208): filarial fever.

New types of fever, borrowed from western medicine, are: āntrikajvara (4.45–61): enteric or typhoid fever; granthikajvara (4.62–74): plague or bubonic fever; śleṣmakajvara (4.75–85): influenza; saṃdhikajvara (4.86–97): rheumatic fever; śvasanakajvara (4.98–115): pneumonia; ākṣepakajvara (4.116–124): cerebrospinal fever; daṇḍakajvara (4.171–174): dengue; kālajvara (4.190–194): kala-azar or leishmaniasis. The series of fevers ends with aupadravikajvara (4.209) as a complication of protracted diseases, especially grahaṇī, and with fevers occurring in foreign countries (4.210: śoṇa- and hāridrakajvara).[391]

A large number of Sanskrit equivalents for terms borrowed from western medicine are employed, for example, jīvāṇu (micro-organism; 4.47, 65, 76, 88, 101, 107), saṃkrānti (the transmission of contagious diseases; 4.77), śvāsayantra (the respiratory tract; 4.78), kalāpuṭa (pericardium; 4.90), phusphusacchada (pleura; 4.91), suṣumnakāṇḍa (spinal cord; 4.118), etc.

Gaṇanāthasena was born in Benares in 1877. His father, Viśvanāthasena, who gave

him his first lessons in āyurveda, moved to Calcutta in 1883, after the death of his wife. Gaṇanāthasena was trained in āyurveda and modern medicine at the Medical College of Calcutta. He founded the Viśvanāth Āyurveda College at Calcutta in 1931 and established the Kalpataru Āyurvedic Works, a manufacturing firm, also at Calcutta. The honorary title of Mahāmahopadhyāya was conferred on him in 1916 and he was elected president of the All India Āyurveda Mahāsammelan thrice (in 1911, 1920, and 1931). He was the Dean of the Faculty of Medicine and Surgery of Banaras Hindu University from 1927 to 1938. He died in 1945.

Apart from the *Siddhāntanidāna*, he wrote the *Pratyakṣaśārīra* and *Saṃjñāpañcakavimarśa*.[392]

SIDDHAPRAYOGA by Viśveśvaradayālu[393] is a therapeutic treatise in nineteen chapters, which are arranged in an unusual order: (1) jvara, (2) atīsāra and grahaṇī, (3) ajīrṇa, (4) plīharoga, vṛścikadaṃśa, and jalodara, (5) rājayakṣman, (6) kāsa, śvāsa, hikkā, karṇasrāva, (7) arśas and bhagna, (8) vātaroga, śūla, kuṣṭha, śītapitta, (9) upadaṃśa, (10) dadru, pāmā, kaṇḍū, (11) mūtrakṛcchra, (12) virecana, (13) vraṇa, (14) dhāturoga, prameha, svapnadoṣa,[394] (15) strīroga, (16) śrīroga,[395] (17) mukharoga, (18) netraroga, (19) bālaroga; a pariśiṣṭa on a diversity of subjects is found at the end. The work contains both āyurvedic prescriptions and rasayogas.

Borrowings from western medicine occur rather frequently in this book. Examples are: tāpamāna (body temperature), phusphusabhittiśotha (pneumonia), and plegākhyaroga (plague).

The materia medica is of a mixed type and contains some drugs deriving from Islamic and western medicine: aisiḍaborika (boric acid: 36), beriyaṃ salphāīṭaka (barium sulphite; 84), brāṇḍi (brandy; 48), isabgola (71),[396] khabbājī (45),[397] kīṭaṣṭhīvana (19),[398] kunenasalphet (quinine sulphate; 15), pistā (78),[399] pīparamenṭaka (peppermint; 24), śītacīnī (70),[400] and veslina (vaseline; 51).

SIDDHAPRAYOGALATIKĀ[401] by Gulrājśarmamiśra is a mainly therapeutic treatise, consisting of about 1,800 verses, arranged in a maṅgalācaraṇa, upodghāta, and thirty-four chapters (puṣpa).

The maṅgala is in praise of Pārvatī; the author also pays homage to his teachers in āyurveda and other sciences: Govardhana Chāṅgāṇī (3 and 19),[402] Kedāra(nātha) (4), and Kālīcaraṇa (5).[403] The upodghāta deals with some general subjects, pharmaceutical preparations, groups of drugs, weights and measures, and substitutes for particular drugs.

The order of the diseases dealt with in chapters one to thirty-four deviates considerably from the traditional arrangements and seems to be peculiar to this treatise.

Noteworthy disorders mentioned by the author are: aṃśughāta (28.1–19),[404] antrapucchabhavaśotha (33.11),[405] ātapadagdha (1.147),[406] asthiśoṣa (17.62), dhanuṣṭaṅka (12.7),[407] dṛṣṭidoṣa (26.24 and 93),[408] hṛdvepana (17.64),[409] kakṣāgranthi (29.25),[410] kālasphoṭa (32.27–29),[411] mastiṣkaroga (28.10),[412] māstiṣkaroga (26.79), masūrikājvara (1.140–141),[413] mauktikajvara (1.150),[414] mocāghāta (12.18),[415] phiraṅga (12.44; 17.62; 26.103), pratiśyāyajvara (1.168), raktacāpa (12.7; 21.50; 33.27 and 85),[416] retaḥkṣaraṇa (18.23),[417] saujāka (13.2 and 22),[418] siriṇī (29.51–53),[419] sphoṭaphunsi (16.9),[420] sujātaka (13.24),[421] śvasanakajvara (1.33),[422] urastoya (27.5), vipakṣaka (12.20),[423] viṣasphoṭa (32.29), yakṛcchūla (33.14), yamayūkāḥ (29.31),[424] yoṣāpasmāraka (17.63), and yoṣāpasmaraṇa (33.83).

The author repeatedly stresses that the efficacy of his formulae has been tested by himself[425] or other medical experts.[426]

The maṅgala verses mention some physicians who transmitted formulae to the author:[427] Govardhana (Chāṅgāṇī), Yādava (Trikamjī), Lakṣmī(rāma),[428] Kṛṣṇa(rāma),[429] Jaya(deva),[430] and Śiva(śarman).[431]

Authorities from whom particular recipes derive and other sources referred to by name are: Agastya (23.23), *Basavarājīya* (5.12),[432] Boraḍakara (1.98), Dhanvantari (1.18; 26.63), Gahananātha (22.55; 34.23), the author's guru (1.13, 38, 62, 106; 7.8; 12.27; 16.34; 22.14), Hakīma Ahamada Baksa (3.50), Hari (28.13), Jayadeva (4.48ab),[433] Kaśyapa (33.61 and 80), Kāśyapa (33.59), Kṛṣṇarāma (4.68),[434] Lakṣmīrāma (21.51), Prabhaviṣṇu (16.7), Rāmakṛṣṇa (3.40), Rāmanārāyaṇa (2.7), the student (vidyārthin) Śambhudatta, a Sārasvata brāhmaṇa (17.28), Saṃtoṣaśarman (30.17; the formulae of chapter thirty-three), Sītārāma (2.67), Śiva(śarman) (1.92; 8.18), Suśruta (26.19; 32.12), Tryambakaśāstrin (2.39),[435] Vedaprakāśa (20.21), Viśvanātha Dvivedin (33.75), Yādava(śarman) (Trikamjī) (1.48 and 88; 4.64; 6.21; 22.32), *Yāvanamata* (7.16),[436] and *Yogaratnākara* (34.42).

More recipes than indicated were borrowed from earlier works[437] or consist of adaptations and are rewritten by the author.[438]

Some elements of western medicine were incorporated: the circulation of the blood is referred to[439] and the presence of iron in the erythrocytes is known to the author.[440]

The materia medica is characterized by numerous substances unknown to early texts; a not inconsiderable number of these drugs derive from Yūnānī and western medicine.

Examples of noteworthy substances are: ābareśama (21.14; 34.41),[441] abdhiskanda (8.16),[442] akīka (7.20; 8.14; 21.4),[443] añjavāra (22.30),[444] ārogyavardhinī (22.30),[445] bahumana (21.41),[446] bhillī (2.2; 12.10),[447] borika (15.8),[448] brāṇḍī (13.13),[449] chaḍīlāchāi (upodghāta 58),[450] cokiyāṭaṅkaṇa (5.7),[451] dālacikanā (17.12), dālacikkana (13.12),[452] dālacikkanaka (13.6), dālacīnī (6.18),[453] dambū (33.32), dambula (14.20), dambūla (3.17 and 45; 7.9),[454] dāriyāyika (21.46),[455] ḍhākagundra (18.9),[456] eluvā ((22.37),[457] gājavā (8.19),[458] gandhavirojā (15.43),[459] guḍaghoṣā (3.54),[460] guḍamāra (18.6),[461] gulagulā (24.12),[462] habbulasa (2.18),[463] haramala (22.42),[464] haraśṛṅgāra (1.80),[465] himasāgara (12.21),[466] hīrādokhī (14.20),[467] jadavāra (8.16),[468] jahara (7.20),[469] jaharamoharā (2.41; 8.14; 21.9),[470] jalanīma (19.32),[471] jatūnataila (1.138 and 139),[472] jhāvū (26.23),[473] junda (8.25; 21.42),[474] jundaka (17.46), jundavedastara (17.2),[475] kābulī abhayā (2.24),[476] kaharavā (3.27),[477] kalamīśoraka (1.129),[478] kālāri (1.37 and 48),[479] kalīsudhā (19.49; 24.14),[480] kandhārīdāḍimi (7.34),[481] kāravālika acid (15.14),[482] kārbolika (15.44),[483] karila (20.16),[484] katīrāgundra (33.32),[485] kattha (13.15),[486] khairasāra (3.2),[487] khūbakalā (1.21 and 51),[488] khūnakharāvā (3.27),[489] kiṅkara (15.32),[490] kiṅkaraka (19.44), kṛṣṇagundrā (18.18),[491] kulthī (30.17),[492] lāhī (2.43),[493] latākarañja (1.12),[494] mahārāsnā (12.19),[495] māī, hrasvā

(2.18),[496] mārūvṛntāka (17.35),[497] mocanī (26.69),[498] morā (1.89),[499] narakarcūraka (19.26),[500] nāyakā (18.6),[501] nīlagirītaila (15.13),[502] nīlama (21.9),[503] nirañjana (33.32 and 35),[504] pannā (21.9, 13, 34),[505] pāṭhānīlodhra (14.1; 33.17),[506] pittaparpaṭa (1.49),[507] postaḍoḍā (17.50),[508] prastarapuṣpaka (21.42),[509] rājī, kāśikā (11.4),[510] rājī, kāśībhūmisamudbhūtā (24.5), sabja (28.14),[511] sahasrasuma (3.52),[512] sālamapañjikā (17.8),[513] saṅgeyaśa(ba) (7.20; 8.14; 21.10),[514] saptaraṅgī (18.19; 30.41),[515] saṭhavā (33.10),[516] śora (15.8),[517] śoraka (4.41; 30.10 and 18), sphaṭīphullā (1.43),[518] sprītka (13.13),[519] suma (17.46),[520] surañjāna (12.8, 49, 55),[521] śyāhajīraka (4.2 and 15),[522] tamākhū (15.13),[523] tārpinataila (1.138 and 139),[524] taruṇyarka (15.8 and 33; 21.11 and 16; 26.38),[525] tṛṇakānta (3.17; 7.20; 14.2 and 20; 21.5, 14, 35, 40),[526] tukhmakhatami (8.19),[527] tukhmarāī (7.28),[528] unnāva (12.3; 19.32),[529] usabā (12.3), usavā (19.45), usavvā (19.32),[530] utphulla (29.26),[531] utphullā (15.12), vacā, hauṇī (3.30),[532] vahamana (21.36),[533] vāvacī (19.38),[534] vidhukānta (3.17),[535] vihi (8.19),[536] viṣamohara (28.8),[537] viṣamoharā (11.11), viṣamorā (1.19; 21.46), and viṣamoraka (21.14).

The *Siddhaprayogalatikā* is quoted in the *Viśikhānupraveśavijñāna*.[538]

The author, a brāhmaṇa, the eldest son of Kedāra(malla) and Mahādevī, was born at Gaurera, a village in the Jaypur district of Rājasthān. He studied āyurveda with Govardhan Śarmā Chāṅgāṇī; his Sanskrit teacher was Paṇḍit Kālīcaraṇ, his spiritual guru Jāgeśvar Jagannāth. He has been working as a practising physician for over fifty-five years. He established the Ayurvedic College and hospital at Pakvasa, Nagpur.

Apart from the *Siddhaprayogalatikā* he wrote the *Viśikhānupraveśavijñāna* and a Sanskrit and Hindī commentary on the *Āyurvedaprakāśa*.[539]

The *Siddhaprayogalatikā* was completed in 1987/88.[540]

SIDDHAYOGASAṂGRAHA[541] by Vaidya Yādavajī Trikamajī Ācārya[542] is a collection of compound formulae in Sanskrit, accompanied by explanations in Hindī on their way of preparation, dosage, anupāna, and indications. Some parts of the work are entirely in Hindī. The treatise consists of twenty-nine chapters (adhikāra) and an appendix (pariśiṣṭa). The chapters are arranged according to the diseases against which the recipes are to be used, but this order differs from that of the *Mādhavanidāna* in many respects. The recipes[543] are partly taken from a number of āyurvedic and iatro-chemical treatises. Another, not inconsiderable part, derives from the author himself. Occasionally a recipe is said to have been transmitted by a physician mentioned by name.[544]

Sources referred to are: *Aṣṭāṅgasaṃgraha*, *Āyurvedaprakāśa*, *Bhaiṣajyaratnāvalī*, *Cakradatta*, Caraka, *Rasaratnasamuccaya*, *Rasendrasārasaṃgraha*, *Śārṅgadharasaṃhitā*, *Siddhabhaiṣajyamaṇimālā*, Suśruta, *Triśatī*, *Vaidyajīvana*, *Yogacintāmaṇi*, and *Yogaratnākara*.[545] A number of recipes quoted from these sources have been changed by the author.[546]

Yādava(śarman) is referred to in Gulrājśarmamiśra's *Siddhaprayogalatikā*, a work that contains formulae attributed to him.[547]

ṢOḌAŚĀṄGAHṚDAYA[548] is a complete textbook of āyurveda, composed by Priyavrata Śarmā.

This treatise consists of 1,551 verses in āryā metre,[549] arranged, in accordance with its title, in sixteen chapters.

Chapter one is about basic principles (maulikasiddhāntāḥ) and chapter two about anatomy (śārīra). Chapter three, on pharmacology (dravyaguṇa), deals with the basic concepts of pharmacology (1–8) and with the properties of the main medicinal substances (90–140). The subject of chapter four is the preparation of medicines (bheṣajakalpanā); this chapter describes the various medicinal preparations (1–42), weights and measures (43–47), technical rules (paribhāṣā; 48–71), and a number of compound medicines in the following order: kvātha, phāṇṭa, hima, cūrṇa, vaṭikā, avaleha, pāka, modaka, ghṛta and taila, āsava and ariṣṭa. Chapter five gives a summary description of rasaśāstra. Chapter six is on the rules for a healthy life (svasthavṛtta). Chapters seven and eight are concerned with rasāyana and vājīkaraṇa. The general principles of pathology (1–30) and the diagnosis of a number of diseases (31–198) form the subjects of chapter nine (rogavijñāna). The remaining chapters are devoted to kāyacikitsā (10), mānasaroga (mental disorders) (11), prasūtitantra (obstetrics and gynaecology) (12), kaumārabhṛtya (paediatrics) (13), agadatantra (14), śalyatantra (15), and śālākya (16).

The chapter on anatomy (2) has incorporated many concepts derived from western medicine: arteries (dhamanī), veins (sirā), and capillaries (keśikā) are distinguished; the functions of heart and lungs and the circulation of the blood are described; the ureteres are called gavīnī; the dissection of corpses (śavaccheda) is recommended for anatomical studies. Chapter three describes some drugs added to the classical āyurvedic materia medica in later times: babbūla (3.57), pārasīkayavānī (3.99), jayapāla (3.108). Chapter four describes the preparation of an arka (4.36); in the verses on weights and measures it mentions a gram (grāma) and a kilogram (kilo); among the prescriptions we find an ākārakarabhādicūrṇa (4.112–113) and a kṛṣṇabījādicūrṇa (4.138–139); senna (svarṇadalā) is an ingredient of one of the compound medicines (4.142); madaphala (= mājūphala) is mentioned (4.146), as well as kulañjana (4.261). The purification of opium (ahiphena) and Cannabis (bhaṅgā) are met with in chapter five. The description of the diseases in chapter nine is not in conformity with the order established by Mādhava; masūrikā is absent, as well as diseases added after the times of Mādhava. Mānasaroga replaces bhūtavidyā.

The *Ṣoḍaśāṅgahṛdaya* is quoted in the auto-commentaries on the author's *Āyurvedadarśana* and *Dravyaguṇasūtra*.

The author was born in Mustafāpur near Paṭnā and is a son of Rāmāvatāra and Premadūlārī.[550] Medical works in Sanskrit by the same author are the *Āyurvedadarśana*, *Doṣakāraṇatvamīmāṃsā*, *Dravyaguṇasūtra*, and *Priyanighaṇṭu*.

The *Ṣoḍaśāṅgahṛdaya* was completed in 1986/87.[551]

STRĪCIKITSĀ, compiled by Vasatirāma.[552]

SŪJAKACIKITSĀSAṂGRAHA, compiled by Gaṇeśadatta.[553]

SVAPNAKAMALĀKARA by Rām Kumār Rāy.[554] This work is a compilation on dreams and their meaning. It consists of five chapters (kallola); chapters one to four (44, 140, 116, and 36 verses respectively) are from unspecified sources; chapter five has been

drawn from the *Dharmasindhu.*[555]

SVASTHAVṚTTASAMUCCAYA by Rājeśvaradatta Miśra Śāstrin.[556] This work deals, as indicated by its title, with the rules for the preservation of health. The text, in verse and prose, was partly written by the author, partly compiled from various sources. The passages deriving from the author betray the influence of western medicine; micro-organisms (jīvāṇu, kīṭāṇu) are repeatedly mentioned; diseases like kala-azar (kālajvara; 342), plague (vātālikā; 342–344), typhoid (āntrikajvara; 344–345), and influenza (śleṣmikasaṃnipāta; 345) are elaborately described.

Sources referred to by name are: *Aṣṭāṅgasaṃgraha, Ātreyasaṃhitā, Bhagavadgītā, Bhāvaprakāśa*, Caraka, *Dakṣasmṛti,*[557] Devala, *Jābālasmṛti,*[558] *Kṣemakutūhala, Mādhavanidāna, Manusmṛti, Mayamata, Nighaṇṭu, Rājamārtaṇḍa*, Śārṅgadhara, *Siddhāntanidāna, Smṛticandrikā,*[559] Suśruta, Vāgbhaṭa, Vātsyāyana, *Vṛddhavāgbhaṭa, Vṛndamādhava*, Yājñavalkya, and *Yogaratnākara.*

The author, the eldest son of Rāmanātha Miśra, was born in a village called Āṭā in the Goṇḍā district in 1901. He studied in Benares, where he settled and practised medicine. He died in 1969.[560]

SVĀSTHYĀMṚTATARAṄGIṆĪ by Lakṣmīnārāyaṇa Miśra.[561] This work consists of quotations from Sanskrit works, accompanied by a Hindī translation.

TRIDOṢASAṂGRAHA by Dharmadattavaidya.[562]

Chapter one (pañcamahābhūtaviṣayakavākyasaṃgraha) deals with the five mahābhūtas, chapter two (vāyuviṣayakavākyasaṃgraha) with vāyu, chapter three (pittaviṣayakavākyasaṃgraha) with pitta, chapter four (kaphaviṣayakavākyasaṃgraha) with kapha.

The treatise consists of quotations, as well as a few parts which are obviously written by the author.

Works and authorities quoted are: *Aṣṭāṅgasaṃgraha, Bhagavadgītā* (65), *Carakasaṃhitā, Chāndogyopaniṣad* (5), *Gītā* (7), *Kāśyapasaṃhitā*, Śārṅgadhara (27), *Suśrutasaṃhitā*, Vāgbhaṭa, and *Yogaratnākara* (59).

TRIDOṢATATTVA by Duraisvāmin Aiyaṅgār.[563]

TRIDOṢAVIJÑĀNA by Upendranāthadāsa.[564]

This work consists of ten chapters (adhyāya), mainly in prose, interspersed with verses; the last verses of each chapter summarize the conclusion of the author.

Caraka and Suśruta are repeatedly quoted.

Chapter one (tridoṣavicāraprayojana; 3–8) puts forward a number of questions: the scientific status of āyurveda, conflicting opinions on a number of subjects, the nature of a doṣa (doṣasvarūpa), etc.; a series of interpretations regarding the nature of a doṣa are listed: a doṣa has the nature of a dravya, it is a śakti, it is sthūla, it is sūkṣma, it is both sthūla and sūkṣma; the author will deal with these questions in the subsequent chapters. Chapter two (doṣadhātumalatvanirūpaṇa; 9–24) deals with generalities on the doṣas, the position of blood and the other dhātus, etc. Chapter three (doṣasaṃjñāhetuvarṇana; 25–28) is about the terms doṣa, dhātu and mala. Chapter four (tritvasamarthana; 29–38) is concerned with the position of blood; the thesis that it should be regarded as a doṣa is rejected. Chapter five (dravyatvanirūpaṇa; 39–43) establishes that a doṣa is a dravya. Chapter six (sthūlatvasthāpana; 44–56) discusses various opinions on the question whether the doṣas are gross (sthūla), subtle (sūkṣma), etc.; the author concludes that they take up a middle position (madhyapramāṇa). Chapter seven (vātādyutpādanotpattyādivarṇana; 57–74) deals with the relationships between the doṣas, together with their guṇas, and the mahābhūtas, together with their guṇas. Chapter eight (vātādiguṇakarmavarṇana; 75–130) is concerned with the qualities and actions of vāta, pitta and kapha; it lists and defines these. Chapter nine (vātādisvarūpabhedavarṇana; 131–156) describes the five kinds of vāta, pitta and kapha. Chapter ten (prādhānyakhyāpana; 157–199) discusses the concept of disease (roga) and opinions on the type of causation (kāraṇatva) attributed to the doṣas; the author concludes that the doṣas are both samavāyikāraṇa and nimitta; finally, he deals with āgantu diseases and opinions on their relationship to the doṣas; he is convinced that the doṣas are their main (pradhāna) cause.

TRIDOṢAVIMARŚA by Dharmadatta.[565]

The first part of this treatise consists of a prastāvanā in prose (1–43),[566] with the subtitle mūlatattvanirūpaṇa, which deals with basic concepts, such as: elements of Sāṃkhya philosophy, the five mahābhūtas, jīvāṇus (regarded as pathogenic micro-organisms), ojas, nija and āgantu diseases, sātmya and asātmya.

The second part, the *Tridoṣavimarśa* properly, also in prose, is about generalities regarding the doṣas (3–4), vāta (5–7), pitta (7–12), kapha (13–18), the signs pointing to excitement of vāta (19–21), pitta (21–24) and kapha (24–27), and, finally, the constitutions (prakṛti) dominated by vāta (27–29), pitta (29–30) and kapha (30–31).

The third part, called *Tridoṣasaṃgraha*, in prose and verse, and largely consisting of quotations, discusses: the twenty-five tattvas and the guṇas (33–35), vāta (36–78), pitta (79–100), kapha (101–131), together with the treatment of disorders caused by each of them, various particularities regarding the doṣas, disorders brought about when they stay in particular constituents of the body, the characteristics of their āma and nirāma states, etc. (132–152).

Part three is made up of quotations which largely derive from the *Carakasaṃhitā, Suśrutasaṃhitā* and Vāgbhaṭa's works; other sources mentioned by name are the *Bhāvaprakāśa* (130, 131), *Mādhavanidāna* (52, 54, 87, 107, 111), *Śārṅgadharasaṃhitā* (39, 40, 42, 82, 115), and *Yogaratnākara* (39).

UPADAṂŚACIKITSĀSAṂGRAHA, compiled by Gaṇeśadatta Śāstrin.[567]
UPADAṂŚASUDHĀSINDHU, compiled by Gadādhara Tripāṭhin.[568]
VAIDYAHṚDAYA by Rādhācandra Śarman.[569]

VAIDYAKĪYASUBHĀSITASĀHITYA or *Sāhityakasubhāṣitavaidyaka*, compiled by Bhāskara Govinda Ghāṇekar, a collection of maxims relating to the science of medicine.[570]

VAIDYAKĪYASUBHĀṢITĀVALĪ, compiled by Prāṇajīvan M. Mehtā.[571]
VAIDYAŚIROMAṆI by Veṅkaṭarāvu.[572]

VAMANAKALPATARU by Gosvāmī Rāmaraṅgaśāstrī.[573] This short treatise, in forty-seven verses, deals with emesis. It is based on Vāgbhaṭa's *Aṣṭāṅgahṛdayasaṃhitā*.

VANAUṢADHIDARPAṆA or the Ayurvedic Materia Medica, with quotations and copious original prescriptions from selected works, by Kavirāja Virajācaraṇa Gupta Kavibhūṣaṇa.[574] This is a useful work, describing the names, properties and actions of medicinal plants, arranged according to the Sanskrit alphabet.[575]

VIṢAMAÑJARĪ by Raṅganātha Sakhārāma Lāḷe.[576]

VIṢATANTRACIKITSĀPRAKĀŚA, compiled by Ravidatta Śāstrin.[577] This work, in verse and prose, consists of seven chapters which are identical with chapters 1–5, 7, and 6 of the Kalpasthāna of the *Suśrutasaṃhitā*.

VIṢAVAIDYACINTĀMAṆI by Boddikūrapāṭi Veṅkaṭaraṅga.[578]

VIŚIKHĀNUPRAVEŚAVIJÑĀNA[579] or *Cikitsākarmapraveśa*, written by Gulrāj Śarmā Miśra,[580] in collaboration with Govind Prasād Upādhyāya.[581]

This treatise, partly composed by the author, partly compiled from earlier sources, consists of sixteen chapters (sopāna), dealing with introductory matter (1; maṅgalācaraṇa), general principles (2; viśikhānupraveśa), the examination of the patient (3; rogīparīkṣā), the constitutions (4; prakṛti), the eightfold examination of a patient (5; aṣṭavidhaparīkṣā), general diagnostic principles (6; rogaparīkṣā), some treatments belonging to pañcakarman (7; subjects described are sneha, abhyaṅga, and svedana), emetic and purgative procedures (8; vamanavirecana), clysters (9; basti), errhines (10; nasya), treatment of diseases (11; cikitsā), dosages of medicines (12; mātrā), the proper times for the administration of medicines (13; auṣadhasevanakāla), substances, mainly fluids, to be prescribed together with a drug or after its ingestion (14; sahapāna, anupāna), urgent treatments (15; ātyayikavijñāna),[582] and quickly acting medicines (16; āśucikitsā).

The work ends with verses on the purpose of the book and on the author.

The chapter on treatment describes the aetiology, symptomatology[583] and therapy of the diseases belonging to the divisions of kāyacikitsā and bhūtavidyā.[584] The diseases are arranged in the order of the *Mādhavanidāna*.[585]

Sources mentioned are: *Aṣṭāṅgahṛdayasaṃhitā* (often), *Aṣṭāṅgasaṃgraha* (often), *Āyurvedaprakāśa* (18; 221), *Bhaiṣajyaratnāvalī* (142; 143; 144; 145; 147; 149, etc.),[586] Bhāvamiśra (216), *Bhāvaprakāśa* (149; 150), *Cakradatta* (57; 106), ṭīkā on the *Cakradatta* (85), Cakrapāṇi's commentary on the *Carakasaṃhitā* (131), Caraka (often), Dhanvantari (4; 5), Gadādhara (70), Hemādri (125), Jejjaṭa (70), *Lohasarvasva* (227), *Mādhavanidāna* (71; 73; 80; 150; 151, etc.), *Madhukoṣa* (163), *Pañcatantra* (49), *Rasacintāmaṇi* (216), *Rasataraṅgiṇī* (231), *Rasopaniṣad*, Śārṅgadhara (123), *Siddhabheṣajamaṇimālā* (223; 227; 234), Suśruta (often), Vaṅgasena (146), *Yajurveda* (1), *Yogaratnākara*, (164; 199; 215; 228; 232),[587] and *Yogaratnāvalī* (163).

Sources added in the commentary are: Bhela (94), *Cikitsākalikā* (93), *Gītā* (16; 77), Govindabhagavatpāda (20; 21),[588] Kaṇāda (43),[589] Kharanāda (79), *Nāḍīvijñāna* (51), *Rasādhyāya* (19), *Rasāmṛta* (218), *Rasaratnasamuccaya* (219), *Rudratantra* (62), *Siddhaprayogalatikā* (218),[590] *Taittirīyopaniṣad* (15), and Viśvāmitra (119).

Colleagues who gave recipes to the author are:[591] Bṛhaspati Triguṇ (243), a friend (242),[592] the author's guru[593] (253; 259; 263), Saṃtoṣaśarman (241), Śivaśarman (260: ratnarāja), Tryambaka Śāstrin (266: svarṇaparpaṭī), Vedaprakāśa (272),[594] Yādava (247), Yādavaśarman (244), and a yogin (255).

The term on which the title of the work is based, viśikhā, is defined in the opening lines of chapter two;[595] this term, found in the *Suśrutasaṃhitā*,[596] designates the qualifications of a physician before he formally enters his profession. Three types of treatment are distinguished, in increasing order of merit: āsurīcikitsā (surgery), mānuṣī cikitsā (treatment with drugs), and daivī cikitsā (treatment with rasayogas) (8–21).

Some ailments known from the later āyurvedic literature are mentioned in chapter sixteen: phiraṅga (229; 231), raktacāpa (248; 249), sujāka (260). A disease borrowed from western medicine is antrapucchabhavaśotha (242: appendicitis).

The materia medica, in particular that of chapter sixteen, contains numerous substances introduced in later times: akīka (260; 268), añjavāra (268), candrasūra (274), dambū (251), dambula (260), eraṇḍakarkaṭī (241), gandhavirojā (265), guḍamāraka (257),[597] hīrādokhī (260), jahara (268), jaharamoharā (259), jayapāla (255), karpūrakācarī (247),[598] kāśībhūmisamudbhavā rājikā (262), katīrāgundra (251), lohabāṇa (249), mārūvṛntāka (262), nirañjanaphala (251), paṭhānīlodhra (270), postaka (252), raktabola (228), rūmā (251), saṃgeyaśa (268),[599] taruṇyarka (247; 273), and tṛṇakānta (268; 269).[600]

Opium and *Cannabis* are repeatedly prescribed.

Part 9

Miscellanea

Chapter 1
Works on pākaśāstra

Medical treatises with a title containing the word pāka are either works on cookery in the service of medicine or collections of formulae for the type of pharmaceutical preparation called pāka.

Information on the contents of a treatise is necessary in order to be able to determine to which group it belongs.

AUṢADHAPĀKĀVALĪ.[1]
BHOJANAKUTŪHALA by Raghunātha Paṇḍita.[2]
BṚHATPĀKASAṂGRAHA by Kṛṣṇaprasādatrivedin.[3] This is probably a modern work.

BṚHATPĀKĀVALĪ, compiled by Gaṅgāprasādaśarman,[4] son of Guru Dīnalāla Śarman of Dvivedipura, from sources not mentioned by name,[5] is a collection of seventy-one pākas and related types of preparation.

The statement found in the introductory verses that the essence of therapy consists of pākavidyā and rasāyana relates to the numerous pāka formulae used for rasāyana purposes.

A pāka is defined as a variety of avaleha (linctus), the difference being that an avaleha is a soft, a pāka a solid type of preparation. The general procedures for preparing a pāka and an avaleha are described in the introductory verses. Although pākas, together with avalehas, constitute the majority of the formulae, the treatise also contains recipes for a guḍa, some khaṇḍas, a lauha, and some modakas.

Substances frequently used as ingredients are ākalla(ka),[6] opium,[7] and the seeds and seed capsules of *Papaver somniferum* Linn.[8] Some other noteworthy substances are cīnīkabāba,[9] copacīnī,[10] khurāsāna,[11] mastakī,[12] and uṭaṅgaṇa.[13]

A number of recipes which, on account of the presence of ingredients of later origin, cannot be very old, are nevertheless attributed to ancient authorities like Ātreya (15–16: jātīpattryavaleha) and Bhāradvāja (108–109: copacīnīpāka). One formula (an avaleha called muphara: 106–107) has been borrowed from Islamic medicine; the same may apply to the sālimapāka (36).

The *Bṛhatpākāvalī* dates from the beginning of the twentieth century.[14]

KṢEMAKUTŪHALA by Kṣemaśarman.[15]
PĀKACANDRIKĀ by Āṇṇajī Ballāla Bāpaṭa Indurakara Vaidya.[16]

PĀKADARPAṆA or *Nalapāka*,[17] ascribed to king Nala,[18] is a work on the culinary art, intended for the royal kitchen.

The treatise consists of 760 verses,[19] arranged in eleven chapters (prakaraṇa),[20] and has been composed in the form of a dialogue between king Ṛtuparṇa and king Nala.[21] The latter, who has adopted the name of Bāhuka after his encounter with the serpent king Karkoṭaka, offers his services as an expert in cookery to king Ṛtuparṇa, who then asks him questions on the origin of his knowledge. Nala begins telling the story of his journey to Damayantī's svayaṃvara and his meeting a group of four gods, the four guardians of the quarters of the sky, also going there. These gods promise to grant him four boons if he is willing to act as their messenger. After Nala's acceptance and deliverance of the message to Damayantī, Indra bestowed on Nala the faculty of making himself invisible, Agni that of controlling fire, Yama the expertise in cookery, and Varuṇa the faculty of controlling the watery element.[22] Having listened to Nala's narrative, Ṛtuparṇa requests him to expound his knowledge of the culinary art (1.1–22). Nala complies and proceeds with giving detailed answers to Ṛtuparṇa's questions.

Chapter one, by far the longest (499 verses), deals first with some general topics: the six kinds of food,[23] the importance of food in preventing diseases, the characteristics of a good cook, the eight faults (doṣa)[24] to be avoided in well-prepared rice dishes (1.23–56), and the right way of preparing various rice dishes, utkrāṇodaka (meat broth), taharī,[25] and rice boiled in broth (māṃsaudana); this section ends with the prevention of the production of garala[26] (1.57–119). The chapter proceeds with the description of various varieties of sūpa[27] (1.121–141), temana[28] and khala,[29] dishes made of kulittha beans, and recipes for flavoured types of navanīta (fresh butter) and ghee (1.142–199). The remaining part of the chapter is devoted to dishes prepared with vegetables or fruits (1.200–497).

Chapter two is concerned with the regimen during the seasons (ṛtudharma) and the six parts of day and night corresponding to them. Chapters three to eleven are successively about bhakṣya (sweets), pāyasa (milk pudding) and pānaka (refreshing drinks), pānaka again, yūṣa (soups), ghṛtānna (dishes with rice and ghee as their main ingredients), lehya (soft dainties), śaityajala (cool and scented water), kṣīrapāka (boiled milk with water, sugar, fragrant flowers or fruits added to it), and dadhi (thick sour milk with flavouring and fragrant substances added).

The recipes of the *Pākadarpaṇa* are modelled on a common pattern and written in a clear style. Each recipe is followed by an enumeration of the medicinal properties and actions of the dish.

Nala is quoted by Cakrapāṇidatta,[30] Ḍalhaṇa,[31] Meghadeva in his commentary on the *Mādhavadravyaguṇa*, Niścalakara,[32] Śīlāṅka,[33] Śivadāsasena,[34] Ṭoḍara,[35] Trimalla,[36] and Vopadeva.[37] Nala is referred to in the *Kāśyapīyakṛṣisūkti*,[38] Kṣemaśarman's *Kṣemakutūhala*,[39] and the anonymous *Pākaśāstra*. Nala was one of the sources of Basava's *Śivatattvaratnākara*.

Some noteworthy terms employed by the author of the *Pākadarpaṇa* are: aṭṭālaka (a refrigerating device; 1.94, 197, 209, 217; 4.29), haraṭṭaka (a grinding stone; 1.129), kalkinī (a knife; 1.219 and 287), pravaṇī (a wide-mouthed pot; 1.222, 132, 138, 147, 202), pūgapaṭṭa (1.173, 216, 226, 231, 245),[40] taharī (1.81–85), temana (1.142–150 and 155–157),[41] and utkrāṇodaka (1.65–70).

Interesting names of vegetables and fruits are: ākalī (1.485), alasandī (1.262),[42] ālopā (1.484),[43] bāṣpa (1.341),[44] cakravarta (1.323),[45] culī (1.336), cūrṇikā (1.484), huṃkāra (1.295), kṣudradantī (1.263 and 494), kurpāṭaka (1.265), latāculī (1.338), madapītikā (1.484), mahābāṣpa (1.356), mahācullī (1.339), nameru (6.10), rājarambhā (1.211), raktabāṣpa (1.357), saikasa (1.494), sāmudraphala (6.20),[46] sāraṅga (6.22), satphalā (6.7; 10.18), śilāchillī (1.340), uṇḍūka (1.377), virūpaka (1.296),[47] and viṣaghnī (1.484).[48]

No particulars are known about the actual author.

The date of composition of the *Pākadarpaṇa* remains undetermined. The quotations from Nala are of no avail because they cannot be traced in the printed text.[49] The earliest author to refer to some work on cookery by Nala is Cakrapāṇidatta. Some names of plants may point to a period not earlier than about A.D. 1200.[50] Since chilli is absent from the *Pākadarpaṇa*, it dates probably from before the introduction of this type of pepper into India in the seventeenth century.[51]

PĀKĀDHIKĀRA.[52]
PĀKĀDHIKARAṆA.[53]
PĀKĀDHYĀYA, anonymous.[54]
PĀKĀDHYĀYA by Harṣakīrti Upādhyāya.[55]
PĀKĀDISAṂGRAHA.[56]
PĀKAKRIYĀ.[57]

PĀKAMĀRTAṆḌA.[58] Sources quoted are: *Pākasudhākara*, *Pākāvalī*,[59] *Sārasaṃgraha*, Śārṅgadhara, *Vaidyavilāsa*, Vaṅgasena, Vṛnda, *Yogacintāmaṇi*, *Yogaratna*, and *Yogaratnāvalī*.[60]

One of the introductory verses claims that the essence of the medical art consists of pākavidyā and rasāyana.[61]

PĀKANIGHAṆṬU.[62]
PĀKAPARIBHĀṢĀ.[63]

PĀKAPRADĪPA by Gaṇeśaśarman.[64] This work, in 535 verses, consists of a collection of eighty-six pākas and avalehas, preceded by an exposition on the preparation of a pāka and various rules connected with this subject (2–17).

Sources are not referred to, except once (465–466: pāṭhāvaleha from the *Āśvinasaṃhitā*).

Many pākas are attributed to particular authorities: the Aśvins (55–68; 214–228; 326–335; 374–382; 388–392; 424–430), Ātreya (232–239), Bhāradvāja (310–317; 352–357), Bhṛgu (165–169), Brahmā (336–344), Dhanvantari (487–499), Gahananātha (502–508), Gorakha (529–532), Mahādeva (469–482), and Śiva (33–39).

Noteworthy items of the materia medica are: ākalla (245), ākallaka (88; 134; 217; 279; 319; 408; 420; 433), arkakarabha (24), asāla (345), cīnīkabābā (88), copacīnī (220; 310; 318), jhiñjhiṇī (151), kabāba (235), kabābaka (448), kallaka (59), karabha

(97), kauñca (76), khasaphala (24), khurāsāna (235), khurāsānikā (24), kuhū (25), lobāna (220), mājū (200), mājūphala (24), mastakī (97; 220), and siṇāvāsika (211).

Information on the author is not available.

PĀKAPRADĪPA by Ravidattavaidya.[65] Probably a modern work.

PĀKĀRṆAVA.[66] This work[67] contains the recipes of fifty-three pākas.[68] Some of these are: āhaphenapāka, akalakarāpāka, araḍūsāpāka, bhilāvāpāka,[69] dālacīnīpāka,[70] kauchapāka,[71] kuḍāpāka,[72] rīṅgaṇīpāka,[73] sālimapāka,[74] and sopārīpāka.[75]

One of the pākas described, the godhūmapāka, is said to derive from Rudra and was also proclaimed by Svayaṃbhū for the benefit of Pārvatī.[76] Opium (ahiphena), sarsaparilla (copacīnī), and rose water (gulābapāka) are mentioned.

Works and authors quoted are: *Ānandamālā* (by Ānandabhāratī), *Bhāvaprakāśa*, *Manoramā*,[77] *Ṭoḍarānanda*, *Vaidyavallabha*,[78] Vaṅgasena, and *Yogacintāmaṇi*.[79]

The references to the *Bhāvaprakāśa* and Ṭoḍara prove that the work cannot be earlier than about A.D. 1600.[80] The MS is written on paper that may be about two hundred years old.[81]

PĀKASAṂGRAHA.[82]

PĀKAŚĀSTRA, anonymous.[83]

This work deals with the preparation of various dishes and gives their medicinal properties. It begins with a bhaktādiprakaraṇa; the second prakaraṇa is about phalaśākādi; the treatise ends with a bhojanaprakaraṇa.[84]

Some of the preparations described in the bhaktādiprakaraṇa are: maṇḍa, yūṣa, sūpa, pāpara,[85] pāyasa, polikā, maṇḍikā, yamalaroṭikā, pūrikā, kacavallī, vaṭaka, pakvavaṭī, pānaka, rāgakhāṇḍava, śikhariṇī, vāsavatī, phenikā, laḍuka, bindumodaka, dugdhakarañjikā,[86] lāpasī,[87] candrahāsī, jalebī, kasāra,[88] koharī, bahurī, and umbikā.[89]

The description of jalebī in this *Pākaśāstra* was regarded as the earliest one known by P.K. Gode.[90]

The only authority quoted is Nala.[91]

The manuscript of this work dates from A.D. 1677/78.[92]

PĀKAŚĀSTRA by Bhīmasena.[93]

Subjects dealt with are: the mode of forming clarified oil from the milk of jack fruits and from bananas; the preparation of ghee, curds and buttermilk; asclepias berry and wild palma christi shrub; the preparation of a curry from the seeds of the nimba tree that is not bitter; the preparation of pulse dishes; the use of the juices of lime and tamarind; the preparation of various cakes; the preparation of pāyasa and various pānakas.[94]

The author calls himself Pāṇḍusūnu and Pavana- or Samīraṇasūnu (i.e., Bhīmasena).[95] The work, said to have been written in Virāṭanagara,[96] is called a sūpatantra.[97]

The Pāṇḍavas lived in the thirteenth year of their exile, disguised as servants, at the court of Virāṭa, king of the Matsyas; Bhīmasena served as the cook of the royal household.[98]

Other works attributed to Bhīmasena are the *Abhidhānacandrikā*,[99] *Vaidyabhūṣaṇā*,[100] and *Vaidyabodhasaṃgraha*.[101]

The Bhīmasena who wrote the *Abhidhānacandrikā*, *Pākaśāstra* or *Sūpaśāstra*, and *Vaidybhūṣaṇā* lived in the nineteenth century according to A. Rahman.[102]

PĀKAŚĀSTRA by Devīsiṃha.[103]

PĀKAŚĀSTRA by Jayagovinda.[104] This work, written in Hindī, deals with the preparation of various dishes for a feast and describes their physiological effects.[105]

The author enjoyed the patronage of a certain Hṛdayanarendra.[106]

PĀKAŚĀSTRA by Śrīmalla.[107]
PĀKAŚĀSTRA by Vindu.[108]
PĀKASUDHĀKARA.[109] Quoted in the *Pākamārtaṇḍa*.

PĀKĀVALĪ.[110] Several texts of this title are known.[111]

One of these texts, edited under the title of *Pākāvalī*[112] and by an unknown author, is of the same type as a yogasaṃgraha, containing formulae for compound medicines against various diseases in the form of a pāka, avaleha, āsava, modaka, vaṭī, etc. Among the disorders mentioned are, for example, śleṣmapitta (36; 43), somaroga (46), and jaratpitta (36).

Noteworthy substances prescribed in this treatise are: opium (ahiphena: 5; 16; 41; 42; phaṇiphena: 48; sarpaphena: 41), ākalkala (39), akalkara (16), ākalkara (4; 32; 45; 47), ākārakarabha (41), copacīnī (47), covacīnī (34), drekkā (25),[113] dvandvaparṇī (43),[114] dvīpāśvā (47: = copacīnī), dvīpottharāsnā (34: = covacīnī), gulāba (42), hemāmbhodhara (13),[115] khākhasa (28; 41), mastakī (38; 43), pārasī vacā (43),[116] uṣṭrakaṇṭaka (45), and uṣṭraphala or -phalā (42).

Two recipes for a śaṅkhadrāva are given (31–33).

The only treatise quoted is the *Rasārṇava* (23).

The above evidence indicates that this *Pākāvalī* is later than the *Śārṅgadharasaṃhitā* (jaratpitta; ākārakarabha) and Bhāvamiśra (copacīnī; pārasī vacā). The presence of a recipe for the preparation of rose water (gulābapāka) and the two recipes for the praparation of a mineral acid (śaṅkhadrāva) point to a period of composition not earlier than the seventeenth century.

PĀKĀVALĪ by Govindarāja, son of Nāganātha.[117]
PĀKĀVALĪ by Kāśinātha.[118]
PĀKĀVALĪ by Kulāvataṃsa.[119]
PĀKAVIDHI by Divākaracandra.[120]

SŪDAŚĀSTRA.[121] A work of this name on cookery is quoted or referred to by Anantakumāra,[122] Cakrapāṇidatta,[123] Hārāṇacandra,[124] Jejjaṭa,[125] Kṣīrasvāmin,[126] Niśca-

lakara,[127] Rāyamukuṭa,[128] Śivadāsasena,[129] Śrīdāsapaṇḍita,[130] Śrīkaṇṭhadatta,[131] and Ṭoḍara.[132] Some of these quotations may be from Nala's *Pākadarpaṇa*.

Bhavyadatta's *Yogaratnākara* contained a sūdaśāstraparicheda.[133]

SŪPAŚĀSTRA.[134] A *Sūpaśāstra* is quoted in Vācaka Dīpacandra's *Laṅghanapathyanirṇaya*[135] and Vopadeva's *Siddhamantraprakāśa*.[136]

Chapter 2
Works on nāḍīśāstra

ABHINAVANĀḌĪTANTRA by Viśvanāth Dvivedī.[1]

BHĀRATĪYANĀḌĪVIJÑĀNA by Prabhākaradevaśarman Caṭṭopādhyāya[2] is a modern monograph on the pulse in about 500 verses, divided into seven chapters.

Chapters one to four deal with general aspects of the examination of the pulse and the recognition of disorders of the doṣas. Chapter five is about pulses which indicate a fatal outcome within a specified period of time and about special cases which, although seemingly grave, are prognostically favourable. Chapter six describes the pulses characteristic for a long series of diseases and chapter seven signs indicating the approach of death.

The author does not indicate his sources,[3] but a large part of his treatise is based upon the works of Kaṇāda, Rāvaṇa and others.[4]

The colours of the vāta-, pitta- and kaphanāḍī are described as respectively dark blue (nīla), pale (pāṇḍura) and white (śveta).[5] The problem of the conflicting views on the location of the pulses of the doṣas with respect to the three fingers of the examiner[6] is solved by declaring that no importance should be given to this location because the doṣas are sufficiently characterized by the movements of the pulse.[7] The list of diseases together with their pulses is longer than in the works of Kaṇāda, Rāvaṇa and Bhūdharabhaṭṭa.[8]

The author was a Principal of the Calcutta College of Āyurveda and wrote his book between the years 1930 and 1934.

BHAVĀNĪNĀḌĪVIJÑĀNA.[9]
DHARMAVAIDYAKANĀḌĪPARĪKṢĀ by Merutuṅga.[10]
NĀḌĪBHEDA.[11]

NĀḌĪCAKRA[12] is a remarkable treatise on the examination of the pulse, full of interesting details on this subject and other medical topics.

The work[13] work consists of 292 verses, arranged in twelve chapters (paṭala). It is composed in the form of a dialogue between Śiva and Pārvatī. The maṅgala is adressed to Śiva.

The introductory verse says that the *Nāḍītantra* will be expounded. The next few verses (2–6ab) relate that Pārvatī asked Śiva for instruction in the difficult art of nāḍīśāstra. Śiva replies that he will transmit to her the very subtle *Nāḍīcakra*.

The exposition begins with the statement that the nāḍīs are said to be 72,000 in

number[14] by the great sages; authorities and works referred to are: Bhela, the *Caraka-śāstra*, Suśruta, the *Tantravistara*, the *Karṇikokta*,[15] Yājñavalkya, and the *Yogaratnāvalīyaka* (7).

The importance of the science of the pulse is highlighted (10–12). Three diagnostic methods are mentioned: touching (sparśana), questioning (praśna) and examining (darśana) a patient (13–14).[16] Touching, i.e., feeling the pulse at the wrist (hastamūla), ankle (pādamūla), or both wrist and ankle, enables a physician to diagnose fever, disorders of the doṣas, the state of the digestive fire, ailments caused by fasting and waking at night, an intensive activity of the digestive fire (atyagni), deficiency of the semen (hīnavīryatva), disorders arising from fear (bhaya), grief (śoka) and confusion (bhrama), ailments arising from food of a particular taste,[17] painful conditions brought about by (an excess of) physical exercise and sexual activity, and disorders of digestion (ajīrṇa) (15–19ab). Questioning reveals the presence of kukṣiśūla, udāvarta, pārśvaśūla, bhagandara, sandhivāta, haemorrhoids (arśāṃsi), the twenty urinary disorders (mūtraroga), skhaladvīrya,[18] śiroroga, poisoning (viṣasevā), antranihsṛti,[19] hastapādādidāha,[20] diseases of the penis, bladder and anus, and bleeding from the female genital organs (raktasrāva bhagotthita) (19cd–22ab). Examination discloses the presence of kāsa, śvāsa, eye diseases, piṭakāḥ, vraṇa, aṇḍavāta, śopha, pāṇḍu(roga), kāmila, pīnasa, asthibhaṅga, ūrubhaṅga, nāḍībheda,[21] galagraha, karṇārbuda, mūrchā, arśāṃsi (haemorrhoids), plīhan, ānāha, udara, sakthiśopha (swelling of the thighs or legs), galagranthi, upajihvā, masūrikā, the eighteen forms of kuṣṭha, ḍamaru,[22] and gaṇḍamālikā (22cd–25).

Finally, the pulse at the wrist is said to reveal all diseases, in the same way as the strings of a vīṇā may produce all the rāgas (26–28ab).

Chapter two (28cd–46) mentions a kanda (bulbous structure), located somewhat downward from the navel, and measuring four aṅgula in breadth and two aṅgula in height,[23] as the place of origin of the 72,000 nāḍīs (28cd–32), which are divided into 30,000 male, 30,000 female, and 10,000 neuter ones, distributed, respectively, over the right, left and middle part of the body (33–34). One hundred and one among these are of more importance; thirteen is the number of the most prominent ones (35ab).

A main group of nāḍīs is formed by the pentad consisting of Iḍā, Piṅgalā, Suṣumnā,[24] located in the upper half of the body, together with Subalā and Balā, located in the lower half. Iḍā is found on the left, Piṅgalā on the right, and Suṣumnā in the middle. Iḍā is the main carrier of the doṣas in females; Piṅgalā is its counterpart in males. The Suṣumnā, the seat of Brahmā, transports vāyu, the basis of breathing (38–43ab). A human being is said to breathe 21,600 times each day and night (43cd–44ab).[25]

Chapter three (47–55) describes where the main nāḍī should be examined by a physician: in males at the left, in females at the right side of the body, in cows at both sides of the nose, in horses at the ears, and in elephants at the mouth, tip of the nose, eyes, tail, and cheeks (51–52).

Chapter four (56–65) is concerned with the way of feeling the pulse and the exact places where to put the fingers (56–59). It describes in which disorders which pulse should be taken (60–63), and which pulse should preferentially be examined in the various periods of life (64–65).

Chapter five (66–80) is about characteristics of the pulse during the three parts of day and night (66) and during the six seasons (67–69ab). Each season endows the pulse with a characteristic type of pulsation (gati), resembling the way in which a particular animal moves about. The chapter proceeds with signs of the pulse connected with the preponderant taste of the food enjoyed;[26] these signs consist again of ways of pulsation resembling the gait of particular animals (69cd–72ab). A combination of the sweet and sour tastes gives rise to the same signs as those attributed to kapha, a combination of the pungent and saline tastes to the signs of pitta (72cd–73ab).[27] The tastes which should predominate in the food taken in a particular season are mentioned (75–76ab), as well as the relationships between the doṣas and the seasons (76cd–79ab) and those between the doṣas and the mahābhūtas (79cd–80).

Chapter six (81–92ab) describes the radial pulse (jīvanāḍī), the way to take it, the signs of the doṣas, signs indicating curability or incurability, and conditions in which it is either practicable or impracticable to feel the pulse.

Chapter seven (92cd–95) instructs the physician to diagnose vāta disorders with the index, pitta disorders with the middle finger, and kapha disorders with the little finger. Patients up to the age of fifty should be examined with the fingers of the right, older patients with those of the left hand.

Chapter eight (96–100) specifies the types of pulsation characteristic of disorders of one doṣa or two doṣas; each doṣa or combination of two doṣas presents a type of pulsation resembling the movement of a particular animal.

Chapter nine ((101–153) describes first the pulse that is typical of involvement of all three doṣas (101–102). Subsequently, it enumerates a group of ten nāḍīs: Iḍā, Piṅgalā, Suṣumnā, Gāndhārī, Hastabīja, Pūṣā, Payasvinī, Alambu, Lakala, and Śaṅkhinī (103–104ab).[28] The six cakras are mentioned,[29] their seats, and the parts of the body where the ten nāḍīs are found (104cd–108).

The remaining part of the chapter is devoted to anatomy. All the verses on this subject have been borrowed from the *Śārṅgadharasaṃhitā* (I.5), with the exception of 125–130, dealing with the seven layers of the skin and the diseases located in these layers.[30]

Chapter ten (154–182) describes the five mahābhūtas (154–158), disorders arising from deficiency of one of these (159–160), the connections between the mahābhūtas and the doṣas (161), between the mahābhūtas and the seven bodily elements (162) and the tastes (163–164), the colours of the mahābhūtas (165), the mahābhūtas preponderantly present in particular constituents of the body (166–170), the ratios of the mahābhūtas in several groups of animals (171–180), and the connections between the mahābhūtas and the seasons (181–182).

Chapter eleven (183–273) is devoted to a classification of diseases. Almost the whole of this chapter has been taken from the *Śārṅgadharasaṃhitā* (I.7). Exceptions are verses 184–185,[31] 186ab, 204–207,[32] and 272–273.[33]

Chapter twelve (274–292) describes that Pārvatī wonders how disorders of the doṣas, which have their seats in various parts of the body, can be diagnosed by means of the radial pulse. Being puzzled, she asks Śiva for elucidation.

Śiva informs her of some anatomical facts. He declares that the mūlādhāracakra[34] contains a vidhigranthi, which is the seat of vāta; similarly, the heart-lotus[35] has a

harigranthi, the seat of pitta; at the throat one finds a haragranthi, which is the seat of kapha.[36]

The nāḍīs originate from the mūlakanda. Three among them, which have the nature of Brahmā, Viṣṇu and Śiva, are more important, but the Suṣumnā is the foremost. This very subtle Suṣumnā runs from the seat of vāta to the seat of pitta, thence to the seat of kapha, to reach finally the Sahasrāra[37] at the top of the head. From the top of the head it goes downwards, branches off, and passes through the forehead, ears, the region between the eyebrows, nostrils, throat, and shoulders, ending at the wrists, where the pulse can be examined. Other branches pass through the sides of the abdomen and the hips, ending at the ankles, where the pulsations are perceptible.

The treatise ends with some verses explaining again that the state of the doṣas is diagnosed by help of the three fingers of the physician.

The author is unknown. The *Nāḍīcakra* must be later than the *Śārṅgadharasaṃhitā*, on account of the large number of verses common to both works.[38]

NĀḌĪCAKRANIDĀNA.[39]
NĀḌĪCAKRANIRṆAYA.[40]
NĀḌĪCAKRAVIDHI.[41]

NĀḌĪDARPAṆA[42] by Dattārama,[43] son of Śrīkṛṣṇalāla,[44] is a treatise in 217 verses, arranged in three chapters (avaloka).

Although stressing the importance of aṣṭasthānaparīkṣā (1.6) and referring to various elements of this procedure (1.11, 12, 14), the work is exclusively devoted to nāḍīparīkṣā. The author emphasizes that the examination of the pulse can be learnt by practice only, not from books (1.24). The cause of the pulsation of the arteries is said to be the contraction of the heart; the circulation of the blood is known to the author (1.31–35).

Other subjects dealt with are: the three types of nāḍī (vāyuvahā, mūtraviḍasthirasavāhinī, āhāravāhinī; 1.37);[45] the total number of nāḍīs (thirty-five millions),[46] the gross nāḍīs (1,072 in number), and the twenty-four main nāḍīs (1.41–45); the places where to feel the pulse (1.46–55); suitable and prohibited times for the examination of the pulse; (2.1–3); suitable and unsuitable patients (2.6–7); the correct procedure for examining the pulse (2.8–20); the characteristics of a normal pulse (2.21) ; the deities presiding over the various pulses (2.22); the colours of the nāḍīs (2.23); the characteristics of the pulse in disturbances of the doṣas (2.26–59) and the author's own opinion on this subject (2.33–46); the pulses indicating curability and incurability or approaching death (2.60–95); the articles of food to be prescribed in patients with an abnormal pulse (2.99–106); the pulse in various disorders (3.1–28); the number of pulsebeats (3. 29–41).[47]

Sources are not mentioned, but the major part of Kaṇāda's *Nāḍīvijñāna* forms part of the *Nāḍīdarpaṇa*.

The *Nāḍīdarpaṇa* is quoted by Prabhakar Chatterjee in his *Bhāratīyanāḍīvijñāna*[48] and Satyadeva Vāsiṣṭha in his commentary on Rāvaṇa's *Nāḍīparīkṣā*.

Dattarāma was a resident of Mathurā.[49] The references to the functions of heart and lungs and to the circulation of the blood enable us to assign the *Nāḍīdarpaṇa* to the nineteenth century. Edition d has two additional chapters on pulse-examination according to Yūnānī (twenty-four verses) and western medicine (eighteen verses).

NĀḌĪGRANTHA.[50]
NĀḌĪJĪVANA.[51]
NĀḌĪJÑĀNA attributed to Ātreya.[52]

NĀḌĪJÑĀNADARPAṆA, a work on the pulse and some related subjects in 252 verses by Bhūdharabhaṭṭa.[53]

The treatise covers all the subjects usual in a work on the pulse, but it deals with other diagnostic procedures as well, namely the examination of the eyes (netraparīkṣā; 222–228), tongue (jihvāparīkṣā; 229–230), nose (nāsikāparīkṣā; 231), faeces (malaparīkṣā; 232–234), urine (mūtraparīkṣā; 235–247), and menstrual discharge (ārtavaparīkṣā; 248–252).[54] This explains that the *Nāḍījñānadarpaṇa* has more verses on general aspects of medicine than the average text on nāḍīparīkṣā and that various types of parīkṣā are referred to in its introductory part as indispensable procedures which have to precede any therapeutic action.

The list of pulses characteristic for particular diseases (79–166) is much longer than in the monographs attributed to Kaṇāda and Rāvaṇa. The same applies to the list indicating a fatal outcome in general or death within a specified period of time (189–220).

The author does not refer to his sources by name, but a comparison with the treatises of Kaṇāda and Rāvaṇa learns that he has incorporated at least half of Kaṇāda's work and some verses of Rāvaṇa.

Fourteen main nāḍīs are mentioned by name: Iḍā, Piṅgalā, Suṣumnā, Sarasvatī,[55] Vāruṇī,[56] Pūṣā,[57] Hastijihvā,[58] Yaśasvinī,[59] Viśvodarā,[60] Kuhū,[61] Śaṅkhinī,[62] Payasvinī,[63] Alambuṣā,[64] and Gāndhārī[65] (30–32).[66] Iḍā, Piṅgalā and Suṣumnā are the most important among these, and Suṣumnā, located in the backbone and the head, is the foremost of the three (32–33). The frequency of the beats of the pulse in the various periods of life is described (50–53).[67] The pulse should be examined at six places: the hands, the feet and the temples (55), or at eight: the hands, the feet, the sides of the throat and near the two sides of the nose (56). The pulses felt at the sides of the nose and at the throat reveal particular disorders (57 and 59). The span of life as determined by the pulse is described (174–176).

The examination of the nose and of the menstrual discharge are rarely mentioned in other treatises.

No particulars are known about the author and his date. He is later, in any case, than the period of composition of the treatises attributed to Kaṇāda and Rāvaṇa.

NĀḌĪJÑĀNADĪPIKĀ.[68]
NĀḌĪJÑĀNAPRADĪPIKĀ.[69]

NĀḌĪJÑĀNAPRAKĀŚIKĀ.[70] The number of openings[71] of the nāḍīs, which are connected with the hairs, and from which drops of sweat (gharmabindu) ooze out, is thirty-

five millions (3).[72] One main nāḍī, the origin of all the others, is the pathway of vāyu, and has its root in the upper part of the body, while its branches reach downwards (4). The fourteen most important nāḍīs, which carry prāṇa, and are established in the jīvakośa, are: Iḍā, Piṅgalā, Suṣumṇā, Sarasvatī, Vāruṇī, Pūṣā, Hastijihvā, Yaśasvinī, Viśvodarī, Kuhū, Śaṅkhinī, Payasvinī, Alaṃbusā, and Gāndhārī (10–13). Ten among these nāḍīs convey the ten kinds of vāyu. Iḍā, Piṅgalā and Suṣumṇā course in an upward direction; Gāndhārī and Hastijihvā provide movement to arms and legs; Alaṃbusā and Yaśasvinī are located in the right, Kuhū and Śaṅkhinī in the left half of the body (14–16). The locations of the terminals (dvāra) of the ten (vāyu-transporting) nāḍīs: Iḍā ends in the left nostril, Piṅgalā in the right nostril, Suṣumṇā in the opening (randhra) (at the top) of the spinal column (vaṃśa), Gāndhārī in the left eye, Hastijihvā in the right eye, Pūṣā in the right ear, Yaśasvinī in the left ear, Alaṃbusā in the mouth, Kuhū in the root of the penis, and Śaṅkhinī in the crown of the skull (17–19).[73]

The ten kinds of vāyu are: prāṇa, apāna, samāna, udāna, vyāna, nāga, kūrma, kṛkara, devadatta, and dhanañjaya;[74] the first five form the more important group; prāṇa and apāna are the most important among them; prāṇa is more important than apāna (20–21); the nāḍīs in the ears perceive sounds, those in the eyes forms, those in the nose smells; the one situated in the tongue perceives tastes, those in the skin perceive sensations of touch; those in heart and mouth give rise to sound; manas, buddhi, etc., are eastablished in the heart (22–23).

Gāndhārī is located behind Iḍā; it has the colour of a peacock's throat and runs from the left foot to the left eye (25). Hastijihvā lies to the front of Iḍā; it has the colour of an utpala (blue water-lily) and runs from the left part of the head to the big toe of the left foot (26). Pūṣā lies behind Piṅgalā; its colour is like that of a dark cloud; it runs from the right eye to the sole of the right foot (27). Alaṃbusā lies to the front of Piṅgalā and is red in colour; it runs from the right eye to the big toe of the right foot (28). Yaśasvinī, lying in front of Piṅgalā, has the hue of a conch and runs from the right part of the head to the big toe of the right foot (29). Śaṅkhinī is located between Gāndhārī and Sarasvatī; it is golden in colour and runs from the left foot to the left ear (30). Kuhū is located between Vāruṇī and Pūṣā; it is white in colour and runs from the big toe of the right foot to the top of the head (31). The most important among these nāḍīs are Viśvodarī, Śaṅkhinī, Rāvanā, and Sarasvatī (32).[75] Suṣumṇā, located in the brahmarandhra, on the road to final liberation (muktimārga), is invisible (avyakta) and associated with Viṣṇu (33). The three main nāḍīs are Iḍā, Piṅgalā and Suṣumṇā; Suṣumṇā is foremost among them (34). Iḍā runs on the left side, Piṅgalā on the right side, and Suṣumṇā in the middle; all three are pathways of vāyu (35). Iḍā has the lustre of a conch and the moon, Piṅgalā is white and red (36). Iḍā is a seat of the moon, Piṅgalā of the sun, Suṣumṇā of the wind (marut); Iḍā is a seat of rajas, Piṅgalā of tamas, Suṣumṇā of sattva; Iḍā is associated with the night, Piṅgalā with the day (37). Iḍā has the nature of vāyu, Piṅgalā that of fire, while Suṣumṇā, lying on the pathway to the brahmadvāra (= brahmarandhra), has the nature of both (38).

The heart resembles an inverted lotus bud, decorated with perforations (39). Piṅgalā has the fire maṇḍala as its dwelling place (gocara) and is called devayāna (40).[76] Iḍā has the somamaṇḍala as its dwelling place and is called pitryāna (41).[77] The long (series of) bone(s) in the back, extending from the anus to the head, and resembling the neck (daṇḍa) of a vīṇā, is called the brahmadaṇḍa (42). The delicate hole at its upper end is called brahmanāḍī; the subtle Suṣumṇā lies between Iḍā and Piṅgalā (43). The jīva is established in the body, which is at some places like a cakra, at other places like a kośa, or again like a jīvagṛha (48). The jīva roams through the body, mounted on the prāṇas; it resembles a spider in its web (49). The ten seats (āyatana) of prāṇa are: the umbilical region, ojas, the anal region, semen, the blood, the temples, the head, the kāṇḍa, and the heart (51).[78] Viśvodarī is thirty-two hasta in length; that part of it which is present in the neck measures one hasta (52). The āmāśaya is located at a distance of ten hasta from this (part of Viśvodarī) and the pacyamānāśaya at a distance of ten hasta from the āmāśaya (53). The distance between pacyamānāśaya and pakvāśaya is ten hasta again; the guhyadeśa (region of the genitals and anus) measures one hasta; its nāḍī resembles the convolutions of a conch (54).

The ingested food passes through āmāśaya, pacyamānāśaya and pakvāśaya; the (digestive) fire is located above the pakvāśaya (55). The rasa derived from the food passes through the nāḍī of the navel and goes to all parts of the body, impelled by vāyu (56). The umbilical region has the form of a tortoise (kūrma); the eight limbs of this tortoise are connected with the eight mahānāḍīs; four among these are in the region of the back, four in the region of the chest (kroḍa) (57). Two of the nāḍīs in the back and two in the chest run upwards, the other four downwards; the nāḍīs running upwards split into two branches (pallava) in the region of the throat; one of these splits again into five smaller branches (58). The branches go to the eyes, nostrils, tongue, lips and ears; one nāḍī, coming from the back, is called ākuñcanakarī (59).[79] A nāḍī, coming from the shoulder region, goes to the hand and splits into five branches; this one too is called ākuñcanakarī (60). A nāḍī running downwards from the back splits into five branches for the toes and is called prasāraṇakarī (61).[80] The ninth limb of the tortoise is called liṅganāḍī; its two branches convey urine and semen (62). The tortoise lies in a transverse position in the umbilical region, its head pointing to the left and its tail to the right; its left legs point upwards, the right legs downwards (63). Two nāḍīs are present in its head, two in its tail, and five in each of its legs (64). Its mouth parts face upwards in women, downwards in men (71). For this reason a physician should examine the pulse of the right hand in males, that of the left hand in females (72).

NĀḌĪJÑĀNAŚIKṢĀ by Kālīprasanna Vidyāratna Bhaṭṭācārya,[81] a modern work.
NĀḌĪJÑĀNAŚIKṢĀ by Haralāla Gupta.[82]

NĀḌĪJÑĀNATARAṄGIṆĪ, a treatise on the pulse in 102 verses by Raghunāthaprasāda.[83]

This work is in the form of a dialogue between a woman called Lolākṣī, daughter of a Gandharva called Pampayya who lived in Bilagrāma, and a physician who answers her questions on diagnostics by means of the pulse (5–8; 101–102).

The usual subjects are covered. Many verses are taken from the monographs on the pulse attributed to Kaṇāda and Rāvaṇa or are very similar to verses found there, although the author does not disclose his sources except mentioning Parāśara by name

(2).

The deities presiding over the pulses of vāyu, pitta and kapha are Brahmā, Śiva and Viṣṇu (10), or, according to another view, Vāyu, Sūrya and Candra (11). The difference in examining the pulse in male and female patients (the pulse of the right hand in males and that of the left in females) is mentioned and explained as due to the head of the kūrma (tortoise)[84] being directed upwards in females and downwards in males (16–18).[85] The pulse in diseases is hardly described (76–81), whereas the frequency of the pulse, dependent on the age of the patient, is elaborately dealt with (82–90).[86] The pulse is explained as brought about by rhythmic contractions of the heart which, with vāta as an intermediary, make the blood move through the vessels (91–92).

Raghunāthaprasāda was the son of Sītārāma and Lakṣmī and a pupil of Śrīnivāsa.[87] Sītārāma was the eldest of the three sons of Tāpīrāma, son of the physician Govardhana who descended from Bālāśarman, a brāhmaṇa of Kānyajubja lineage.[88]

The *Nāḍījñānataraṅgiṇī* is a modern work as appears from its description of the contraction of the heart as the origin of the pulse.[89]

NĀḌĪJÑĀNAVIDHI[90] by Raghunātha Paṇḍita[91] is a short treatise in twenty-two verses on the characteristics of the pulse in excitement of each of the three doṣas, in saṃnipāta, and in a short series of disorders. The author also describes the views of Caraka on the pulse in disorders of one doṣa, two doṣas, and saṃnipāta.[92]

NĀḌĪJÑĀNAVINIRṆAYA.[93]
NĀḌĪKARARATNADARPAṆA.[94]
NĀḌĪLAKṢAṆA.[95]
NĀḌĪLAKṢAṆA, ṢAḌVIDHA.[96]
NĀḌĪMŪTRAMALANETRAPARĪKṢĀ.[97]
NĀḌĪMŪTRANETRAPARĪKṢĀ.[98]
NĀḌĪMŪTRAPARĪKṢĀ.[99]

NĀḌĪNAKṢATRAMĀLĀ.[100] The nāḍī[101] situated at the root of the thumb has an extension of three fingers (aṅgula) and the size of a barleycorn; it is connected with all parts of the body (1). The course of kapha in this wonderful nāḍī can be found between those of vāta and pitta (2). The course of pitta may be detected by means of the forefinger, that of kapha by means of the middle finger, and that of vāta by means of the ring finger (3). Taking the root (of the thumb) as the point of reference, the nearest pulse is that of pitta, followed by those of kapha and vāta (4). A physician should determine the nature of the vāta pulse first, subsequently that of kapha and pitta (5).

The characteristics of the normal pulses of pitta, kapha and vāta (6–7). Characteristics of abnormal pulses of vāta, kapha and pitta (8). An abnormal condition (vakragati) of the three pulses indicates disease, a normal (sama) condition health (9). The pulse of kapha is called after Brahmā, that of pitta after Viṣṇu, that of vāta after Īśvara (= Śiva); this is the opinion of Dhanvantari (10). The characteristics of the pulse indicating a disorder of vāta and pitta (11), pitta and vāta (12),[102] kapha and pitta (13), pitta and kapha (14), kapha and vāta (15), vāta and kapha (16). The characteristics of the pulse in disorders caused by vāta (17), kapha (18) and pitta (19). The characteristics of a particular type of irregular pulse (20).[103] The characteristics of a particular abnormal pulse indicating thirty-two disorders (doṣa) (21).[104] The characteristics of the pulse in a disorder called sūtikāvāyu (22).[105] Pulses indicating an (external) fever, internal fever, and a fever that has reached the bones (23). Characteristics of the pulse indicating a fatal outcome (24). The importance of determining the five main characteristics of the pulse (25–26).[106] Characteristics of the pulse indicating a favourable prognosis (27).

The author of the commentary, called *Nāḍīnirūpaṇā*, was Kṛṣṇa Sūri, son of Gopālācāryasūri, of Sātulūri lineage.[107]

Authorities quoted in the commentary are Amara and Viśva.

NĀḌĪNIDĀNA or *Nāḍīnirṇaya*, a work in twenty-seven stanzas attributed to the Aśvins.[108]

NĀḌĪNIRṆAYA.[109]
NĀḌĪNIRŪPAṆA.[110]
NĀḌĪPARIJÑĀNA, compiled by Śrīnivāsācārya Ayyavāralu.[111]
NĀḌĪPARĪKṢĀ by Agniveśa.[112]
NĀḌĪPARĪKṢĀ by Avadhūta.[113]
NĀḌĪPARĪKṢĀ attributed to Dattātreya.[114]
NĀḌĪPARĪKṢĀ by Ḍhuṇḍhirāja.[115]
NĀḌĪPARĪKṢĀ by Gaṅgādhara.[116]
NĀḌĪPARĪKṢĀ by Govinda.[117]
NĀḌĪPARĪKṢĀ by Kaṇāda.[118]
NĀḌĪPARĪKṢĀ by Mandhara.[119]
NĀḌĪPARĪKṢĀ by Mārkaṇḍeya.[120]
NĀḌĪPARĪKṢĀ by Nañjarāja.[121]
NĀḌĪPARĪKṢĀ by Pūjyapāda.[122]

NĀḌĪPARĪKṢĀ by Rāmacandra Somayājin, son of Agnicit Sūryadāsa of Naimiṣāraṇya.[123]

NĀḌĪPARĪKṢĀ ascribed to Rāvaṇa,[124] a treatise on the pulse in ninety-six verses.

The maṅgala is addressed to Indirā, i.e., Lakṣmī. The second verse refers to aṣṭasthānaparīkṣā.

The subjects dealt with are: the jīvanāḍī (i.e., the radial artery), called thus by Nandi(n),[125] located in the forearm and connected with all parts of the body; this jīvanāḍī, when examined at the base of the thumb, reveals all types of disturbances of the doṣas (3–5); the correct way of examining the pulse in men and women at the wrist and at the ankle (6–10); the three pulses of the doṣas in relation to the three fingers of the examiner, their characteristics when the doṣas are in balance and when they are excited (11–14); qualities of the pulses of the normal and the excited doṣas (15–19); the pulse in a healthy person and in incurable diseases (20–23); the pulse in

various disorders (24–38); the qualities of the pulse when the doṣas are staying in their respective seats, when increased, decreased, or disturbed in various ways (39–45); the pulse in various disorders (46–67); pulses indicating incurability or death within a specified period of time (68–90); characteristics of a dying person (91–93); the number of pulsations compatible with life (94); the pulse in a fever which has reached the innermost parts of the body (95); the duty of a physician to withhold treatment from a patient after recognizing the approach of death (96).

Rāvaṇa's treatise on the pulse is less systematically arranged than that of Kaṇāda. It is probably quoted by Āḍhamalla and Kāśīrāma.[126] Rāvaṇa is mentioned in Kapilamiśra's *Nāḍīprabodhana.*

A modern Sanskrit commentary on the work, called *Vivṛti*, was written by Satyadeva Vāsiṣṭha.[127]

Authors and works quoted or referred to in this commentary are: Amara (38; 87), *Añjananidāna* (49; 63), *Aṣṭāṅgahṛdayasaṃhitā* (26), *Āyurvedaśāstra* (10), *Basavarājīya* (5; 8; 17–18; 20; 21; 23; 29; 31–32; 74; 86; 87), *Bhagavadgītā* (9; 10), Bhāskara's *Siddhāntaśiromaṇi* (10), *Bhāvaprakāśa* (46), Caraka (often), Kaṇāda (often), *Liṅgapurāṇa* (4), *Madhukoṣa* (64), *Nāḍīdarpaṇa* (34), *Nāḍīprakāśa* (83; 86), *Nidāna* (31; 57), Nīlakaṇṭha's *Praśnatantra* (34),[128] Patañjali (34), *Rasavaiśeṣika* (24–25), *Ṛgveda* (7; 10), *Śatapathabrāhmaṇa* (8), Suśruta (often), Videha (64), *Yajurveda* (10; 92), Yāska (34), and *Yogaratnākara* (74; 75; 77; 84–85; 87–88).

The two main teachers of the author were Nāthūrāmamaudgalya, son of Gokula, pupil of Gaṇanātha, and Tilakarāmaśarman, son of Sukharāma, pupil of Arjunamiśra.[129]

The following elements of Rāvaṇa's *Nāḍīparīkṣā* are absent from Kaṇāda's *Nāḍīvijñāna*:[130] the term jīvanāḍī and its attribution to Nandi(n); the reference to aṣṭasthānaparīkṣā; the differences in the examination of the pulses in men and women. The series of diseases mentioned together with the characteristics of the pulse observed in them is longer than in Kaṇāda's work.[131]

Nothing is known about the real author of the text.[132]

The quotations from Rāvaṇa's *Nāḍīparīkṣā* by Āḍhamalla, if from this text and not from a floating tradition,[133] suggest a date anterior to the fourteenth century.[134] The reference to aṣṭasthānaparīkṣā seems to contradict such an early date since this subject is not mentioned in medical treatises until the beginning of the sixteenth century.[135]

NĀḌĪPARĪKṢĀ by Śrīvātasya rājabhiṣak.[136]
NĀḌĪPARĪKṢĀ compiled by Vipinavihārin Gupta.[137]
NĀḌĪPARĪKṢĀ by Yogīśvara.[138]
NĀḌĪPARĪKṢĀ, anonymous.[139]

NĀḌĪPARĪKṢĀDICIKITSĀKATHANA by Ratnapāṇiśarman, son of Gaṅgolī Saṃjīveśvaraśarman, patronized by Chattrasiṃha of Mithilā. This work is a treatise on the examination of the pulse and on therapy in 552 verses, arranged in five chapters (vilāsa). The order of the diseases in this treatise is odd; it ends with a rasaprakaraṇakīrtana. It has been composed after A.D. 1550.[140]

NĀḌĪPARĪKṢĀJÑĀNĀDI.[141]
NĀḌĪPARĪKṢĀLAKṢAṆA.[142]

NĀḌĪPRABODHA by Rāmacandra Vājapeyin,[143] son of Sūryadāsa and pupil of Śrībhāratī, a treatise in 158 verses, composed in A.D. 1446.[144]

NĀḌĪPRABODHAKA by Kavirāja Kṛpālamiśra or Kṛṣṇamiśra Pañcendra.[145]
NĀḌĪPRAKARAṆA by Kaṇāda.[146]
NĀḌĪPRAKARAṆA by Śivadāsa, in thirty-eight stanzas.[147]
NĀḌĪPRAKARAṆA from the *Vaidyabhūṣaṇa Bhīmarāva.*[148]
NĀḌĪPRAKARAṆA or *Nāḍīparīkṣā*, anonymous.[149]
NĀḌĪPRAKĀŚA by Dattarāma.[150]
NĀḌĪPRAKĀŚA from the *Gautamīyatantra.*[151]
NĀḌĪPRAKĀŚA by Govinda.[152]
NĀḌĪPRAKĀŚA by Kaṇāda.[153]
NĀḌĪPRAKĀŚA, compiled by Pītāmbarasena.[154]
NĀḌĪPRAKĀŚA by Rāmarāja,[155] son of Ratnadeva.[156]

NĀḌĪPRAKĀŚA by Śaṃkarasena[157] Kavirāja, a work in three[158] or four[159] chapters (uddyota), based on Kaṇāda's *Nāḍīvijñāna.* It quotes a large part of Kaṇāda's verses,[160] frequently in a changed order, and comments on them, thereby comparing Kaṇāda's views with those of other authorities. Śaṃkarasena enlarges on some subjects, in particular the seasons and the causes of excitement of the doṣas. Chapter three contains sections on the examination of the menstrual discharge, semen, urine, nose, eyes, and tongue, which are subjects not dealt with in Kaṇāda's work. Chapter three ends with the statement that the art of feeling the pulse can be learnt only by concentrating one's mind in the same way as in yoga. Chapter four is, apart from the first few verses, omitted in edition b and replaced by an exposition on yoga and breathing. The full Sanskrit text of this chapter and its translation are found in edition c; it consists of an exposition on prognostic signs derived from characteristics of the breathing of the patient.[161]

Sources quoted are *Jāmala* (chapter four), the *Prayogacintāmaṇi*[162] (88: on the examination of the urine and other types of parīkṣā), (the *Nāḍīprakāśa* of) Rāmarāja (20; 85), and Suśruta (50: on the excitement of the doṣas and blood; 86: on the menstrual discharge; 87: on semen). The *Dattātreyasaṃhitā* was also among Śaṃkarasena's sources.[163]

Śaṃkarasena's *Nāḍīprakāśa* is quoted in Jīvānandavidyāsāgara's commentary on Kaṇāda's *Nāḍīvijñāna.* Śaṃkarasena is referred to in Kapilamiśra's *Nāḍīprabodhana.*[164] The *Nāḍīprakāśa* quoted in Aghoranātha's commentary on his *Bhiṣaksarvasva* and Lakṣmīrāma's commentary on the *Siddhabheṣajamaṇimālā* is Śaṃkarasena's work. An unspecified *Nāḍīprakāśa* is cited in Satyadeva Vāsiṣṭha's commentary on Rāvaṇa's *Nāḍīparīkṣā.*

Śaṃkarasena belonged to the medical caste called Ambaṣṭha [165] and was the son of Śrīpati, a descendant of Duhisena. [166] He lived in Bengal [167] and wrote his work for his friend, Kavirāj Sānanda. [168]

The *Nāḍīprakāśa* was composed towards the end of the nineteenth or in the beginning of the twentieth century. [169]

NĀḌĪSAMUCCAYA. [170]
NĀḌĪŚĀSTRA. [171]
NĀḌĪŚĀSTRASAMGRAHA. [172]
NĀḌĪTANTRA. [173]
NĀḌĪTANTRA by Hārīta. [174]
NĀḌĪTANTRA, ṢAḌVIDHA-. [175]
NĀḌĪTANTRAVIDHI, ascribed to Dattātreya. [176]
NĀḌĪTARAṄGIṆĪ. [177]
NĀḌĪTATTVAVIDHI, ascribed to Dattātreya. [178]
NĀḌĪVICĀRA. [179]
NĀḌĪVICĀRAROGAGAṆANĀ. [180]
NĀḌĪVIDHĀNA. [181]
NĀḌĪVIJÑĀNA, anonymous. [182]
NĀḌĪVIJÑĀNA by Dvārakānātha Bhaṭṭācārya. [183]

NĀḌĪVIJÑĀNA by Govindarāmasena, son of Kṛṣṇavallabhasena and grandson of Śrīpatisena. [184]

NĀḌĪVIJÑĀNA, ascribed to Kaṇāda, [185] is a monograph on the examination of the pulse in 116 verses. [186]

The maṅgala is addressed to Śambhu, i.e., Śiva, whose five mouths revealed the five Vedas, i.e., Ṛg-, Yajur-, Sāma-, Atharva-, and Āyurveda. Maheśa, i.e., Śiva, transmitted his knowledge of the Vaidyaka, i.e., Āyurveda, to Dhātar, i.e., Brahmā or Prajāpati; Dhātar gave it to Turāṣāh, i.e., Indra, and Indra in his turn to Kaṇāda.

The nāḍīs of the human body are said to be thirty-five millions in number and to have the umbilical region as their place of origin; 72,000 among them transport the perceptions of the five senses and 700 the fluid derived from the food (annarasa); twenty-four nāḍīs only can distinctly be felt. The nāḍī in the right hand or foot is the one to be examined in particular. [187] A tortoise (kūrma), thought to be located in the umbilical region with its mouth directed to the left, its tail to the right, its left legs upwards and its right legs downwards, is the origin of the twenty-four nāḍīs accessible to examination; two nāḍīs proceed from its head, two from its tail, and five from each of its legs (3–9).

The right way to examine the radial pulse is described and the circumstances which are suitable or unsuitable to the procedure (11–13). The synonyms of the term nāḍī are enumerated (15) and the way to distinguish the pulse of the three doṣas when in balance or excited is described (16–18). The characteristics of the pulse in a healthy person are given, and those of a normal pulse during the morning, afternoon, evening and night (19–20). The verses which follow are on the qualities of the pulse in disorders

of one, two, and all three doṣas (21–30), on the pulses which indicate incurability or death within a specified period of time (31–49), curability in cases seemingly incurable (50–61), on the relation between the pulse and particular articles of diet, as well as foods with a particular taste (62–78). The treatise ends with a long series of stanzas on the pulse in various diseases (80–116). [188]

Verses from Kaṇāda's treatise form part of Dattarāma's *Nāḍīdarpaṇa* and the section on nāḍīparīkṣā of Śrīkaṇṭhasūri's *Hitopadeśa*. Kaṇāda and his *Nāḍīvijñāna* are quoted in Gulrājśarmamiśra's *Viśikhānupraveśavijñāna*. Kaṇāda (i.e., the *Nāḍīvijñāna*) is often cited in Satyadeva Vāsiṣṭha's commentary on Rāvaṇa's *Nāḍīparīkṣā*. A *Nāḍīvijñāna* is quoted in Aghoranātha's commentary on his *Bhiṣaksarvasva* and Yogendranātha's *Āyurvijñānaratnākara*.

Commentaries on Kaṇāda's *Nāḍīvijñāna* were written by Govindarāma, [189] Hariharanātha Śāstrin, [190] Śaṃkarasena, [191] and Jīvānandavidyāsāgara. [192]

Authorities quoted in Jīvānanda's commentary are: [193] Amara (6), *Bhāvaprakāśa* (13; 70), Caraka, Dattātreya (7; 8), *Gāruḍasvarodaya* (3), Govindarāma (81; 97), [194] Haima (89), Medinī (6; 80; 82; 100), *Nidāna* (91), [195] *Pārāśarīya* (3), *Rājanighaṇṭu* (63), Rāmarāja (19; 23; 113), [196] Śaṃkarasena (18; 20; 26; 30; 81; 82; 83; 84; 93; 102; 110; 113), [197] *Śivasaṃhitā* (3), [198] *Sūkṣmasvarodaya* (3), [199] Suśruta, Vāgbhaṭa (70; 78), and *Viśva* (5). [200]

Jīvānanda's commentary records a large number of variant readings.

No particulars are known Kaṇāda and the date of his work. [201]

NĀḌĪVIJÑĀNĪYA. [202]

NĀḌYĀDIPARĪKṢĀ by Rāmacandra Somayājin. [203] This work is probably identical with Rāmacandra Vājapeyin's *Nāḍīprabodha*.

NĀḌYUTPATTI by Śrīrāma. [204]
TRIDOṢANĀḌĪVIVARAṆA. [205]

Chapter 3
Various authors

AGHORA: *Vidyāvalī* or *Aghoravidyāvalī*, a work in āryā metre, which consists of sixteen chapters (adhikāra), and deals with several branches of medicine.[1]

AGHOṢAMAṆI: *Mūlakacandraprakāśa*.[2]

AGNIVEŚA's *Añjananidāna*[3] deals exclusively with nidāna.[4]

The work consists of 235[5] verses, mostly ślokas;[6] the majority of these were composed by the author. After the introductory stanza, the causes of excitement of the doṣas, the signs of these when excited, and some other general subjects are dealt with (2–9). Verses 10–233 are about the nidāna of the various diseases. The influence of the *Mādhavanidāna* is distinctly traceable in the *Añjananidāna*,[7] but many divergences can be noticed. The arrangement of the diseases resembles that of Mādhava most from jvara up to śotha (10–164). Subsequently, the number of differences increases. Since the *Añjanidāna* is much more concise than the *Rogaviniścaya*, some of the nosological entities described in the latter work are omitted.[8]

Sources are not referred to in the *Añjananidāna*.

The *Añjananidāna* is quoted in Satyadeva Vāsiṣṭha's commentary on Rāvaṇa's *Nāḍīparīkṣā*.

Compared with the *Mādhavanidāna*, the following additions are conspicuous: quotidian fever is said to pervade the body during fifty ghaṭīs[9] (26); three viparyaya types of irregular fever are distinguished (26); a type of fever arising from kṣveḍa[10] is described (30); laghu and guru types of fever are mentioned (32–33); saṃgrahaṇī is distinguished from grahaṇī (47); bhasmaka[11] is added to the varieties of ajīrṇa (57); vraṇāyāma[12] is added to the series of vāta diseases (110); medoroga is supplemented by svabhāvadurbalatā[13] (151); vṛddhi is broken up into kuraṇṭaka[14] and vardhma[15] (165–168); masūrikā is said to occur exclusively in children (209); dhvajabhaṅga, i.e., impotence (209), and other disorders of male sexual functioning are described (220–222).

Commentaries on the *Añjananidāna* are reported to have been written by Bālaśāstrī Garde,[16] Dattarām Caube,[17] Gumana Rāma,[18] Jayakṛṣṇamiśra,[19] and Tripāṭhiśaṃkara.[20]

Agniveśa is mentioned as the author in the first and the last verses. The real author remains unknown.[21] Several nosological details are in favour of assigning the work to a period later than the eleventh or twelfth century. The only evidence as to the lower limit is provided by the date of some MSS (1752,[22] 1793,[23] and 1794).[24]

AKALAṄKASVĀMIN: *Vidyāvinoda*. This work by a Jain author refers to Bhāskara, Dharmakīrti, Pūjyapāda, and Vīrasena.[25]

ANANTAKUMĀRA's *Yogaratnasamuccaya*[26] is a very extensive treatise, mainly dealing with therapy, and containing extracts from a large number of earlier authors and works quoted by name.

The work is written in verse, interspersed with prose passages, and contains about 10,000 stanzas, arranged in thirty chapters (adhikāra), the subjects of which are: (1) the doṣas (1–61); (2) pañcakarman, i.e., sneha (1–19), sveda (1–22), vamana and virecana (1–73), basti (1–123), and nasya (1–27); (3) dhūma (1–7), gaṇḍūṣa and kavala (8–12), mūrdhataila (12–23); (4) raktamokṣaṇa (1–78); (5) kṣāra and agnikarman (1–18); (6) bhojana, viruddhānna, prativiṣa (1–129); (7) snehapāka (1–134); (8) dravya (1–1262); (9) jvarādirogacikitsā, on jvara (1–595), raktapitta (596–673), asṛgdara (674–720), and asthisrāva (721–761); (10) kāsādirogacikitsā, on kāsa, śvāsa, and hikkā (1–287); (11) rājayakṣmādirogacikitsā, on rājayakṣman (1–108), svarasāda (108–146),[27] arocaka (147–193), and praseka (194–204); (12) chardyādirogacikitsā, on chardi (1–72), hṛdroga (72–156), tṛṣṇā (157–229), mada, mūrchā and saṃnyāsa (230–274); (13) on arśas and udāvarta (1–282); (14) atisārādirogacikitsā, on atisāra (1–224) and grahaṇī, together with agnimāndya, ajīrṇa, alasaka and viṣūcikā (225–494); (15) on mūtrāghāta and mūtrakṛcchra (1–198), prameha, śarkarā and aśmarī (199–327), somaroga and mūtrātīsāra (328–339); (16) vidradhyādirogacikitsā, on vidradhi (1–89), vṛddhi (90–168), gulma (169–499), śūla (500–580), ādhmāna, ānāha, and some related disorders (581–588); (17) jalakūrmādirogacikitsā, on jalakūrma (589–632), plīhan (633–683), and udara (1–152); (18) on pāṇḍuroga (1–71), kāmalā, kumbhakāmalā and halīmaka (72–134), śopha (135–243), visarpa (244–409), masūrikā (410–468), visphoṭa (469–487), śītapitta and amlapitta (488–507), and kṣudramasūrikā (508–514); (19) on kuṣṭha (1–241), śvitra (242–282), and krimi (283–355); (20) vātādirogacikitsā, on vātavyādhi (1–381), vātaśoṇita (382–530), sthaulya (531–549), kārśya (550–556), and nidrā (557–571); (21) vandhyādirogacikitsā, on vandhyā (1–35), garbhiṇī (36–320),[28] and bālaroga (321–576); (22) on warding off (pratiṣedha) bālagrahas (1–282); (23) on warding off bhūtonmāda (1–29), unmāda (30–91), and apasmāra (92–151); (24) netrarogādicikitsā, on netraroga (1–515), karṇaroga (516–594), nāsāroga (595–642), and mukharoga (643–851); (25) śirorogacikitsā (1–166); (26) vraṇacikitsā, on vraṇa (1–219), bhagna (220–270), and dagdha (271–280); (27) bhagandarādicikitsā, on bhagandara (1–39), granthi and arbuda (1–37), ślīpada (38–58), apacī (59–98), and nāḍī (99–112); (28) kṣudrarogacikitsā (1–89); guhyarogacikitsā, on upadaṃśa, yonyarśas, piṭakā, niruddhamaṇi (1–37), yonivyāpad and related disorders (38–74); (29) viṣacikitsā (1–410); (30) rasāyana (1–186) and vājīkaraṇa (187–255).

Though the author's main concern is therapeutics, the subject of nidāna is not neglected in this work. The treatment of most diseases is preceded by verses on their aetiology and symptomatology. Religious and astrological elements are quite common in Anantakumāra's therapy,[29] but, broadly speaking, his work can be characterized as belonging to the mainstream of āyurvedic tradition since rasauṣadhas are nearly absent. Mercury is only rarely prescribed and opium seems to be unknown to the author.

The arrangement of the diseases differs entirely from the order introduced by Mādhava and has obviously been influenced by Vāgbhaṭa.

The *Yogaratnasamuccaya* is for the greater part a compilation from the works of predecessors, but verses that were probably composed by the author are not rare; versified passages from sources in prose are also found and even indicated as such.[30] Numerous borrowings are said to derive from some unspecified treatise (*tantrāntara*).

The sources quoted by name are:[31] Acyuta,[32] *Āgama*,[33] Āgastya,[34] Agniveśa, *Āgniveśya*, Ālambāyana,[35] *Amarakośa*,[36] *Amitaprabhīya*,[37] *Amṛtadhā-*,[38] *Amṛtamālā*,[39] *Amṛtāñjali*,[40] *Amṛtaprabhīya*,[41] *Ārogyaśāstra*,[42] *Āryāsamuccaya*,[43] *Āśvinasaṃhitā*,[44] *Āśvineya*,[45] *Āśvinīya*,[46] Aurabhra,[47] Bāhuśāla,[48] Bāhusaṅghā,[49] *Bārhaspatya*,[50] Bhadraśaunaka,[51] Bhadravarman,[52] *Bhālukīya*,[53] *Bhāradvājīya*,[54] Bharata,[55] Bhārgava,[56] Bhavaka,[57] *Bhaviṣyatpurāṇa*,[58] *Bhaviṣyottarapurāṇa*,[59] Bhela,[60] *Bhiṣaṅmuṣṭi*,[61] Bhoja,[62] Bhojarāja,[63] *Bhojottara*,[64] Bimbasāra,[65] *Bindusāra*,[66] Brahmacārin,[67] *Brahmāṇḍapurāṇa*,[68] *Brāhmīyasūtra*,[69] *Bṛhadbhoja*,[70] Cākṣuṣa,[71] Candrā-,[72] Candraṭa,[73] Caraka, *Carakanyāsa*,[74] *Catuḥṣaṣṭi*,[75] *Cikitsākalikā*,[76] *Cikitsārṇava*,[77] *Daśemānī*,[78] *Devalīya*,[79] *Dīpanīya*,[80] *Dravyakalpa*,[81] *Dravyāvalī*,[82] *Ekadravya*,[83] *Eraṇḍakalpa*, *Gandhayukti*,[84] *Gaṇḍīrāriṣṭahārītakīvyākhyāna*,[85] *Gaurītantra*,[86] Hāriścandra,[87] Hārīta,[88] *Hārītīya*,[89] *Hiraṇyākṣīya*,[90] Indu,[91] *Īśānayoga*,[92] Jānuka,[93] Jarjaṭa,[94] Jātukarṇa,[95] Jīmūtasena,[96] Jitasena,[97] Jīvaka-,[98] Jīvakī-,[99] *Kalyāṇa(ka)-*,[100] Kāñcīpuravāsin,[101] Kāṅkāyana,[102] *Kārikā*,[103] *Kāśyapīya*,[104] *Kātyāyanīya*,[105] Kharanāda,[106] *Kharanādīya*,[107] Kṛṣṇātreya,[108] Kṣārapāṇi,[109] *Kṣārapāṇīya*,[110] *Kṣudrabhoja*,[111] *Kumārasaṃhitā*,[112] *Līnārthadyotanī*,[113] *Mahābhārata*,[114] *Mahāpāṭhaśuddhi*,[115] *Mahāyāna*,[116] *Mahendrakalpa*,[117] *Mahodadhi*,[118] *Manoramā*,[119] *Manusmṛti*, *Mayamata*,[120] Nāgārjuna,[121] *Nāgārjunīya*,[122] *Nāmanīta*,[123] *Nāradīya*,[124] *Nārāyaṇīya*,[125] Pālakāpya, Pārāśarya,[126] *Pāṭhaśuddhi*,[127] *Prayogahṛdaya*,[128] *Prayogakośa*,[129] *Prayogaratnākara*,[130] *Prayogārṇava*,[131] *Prayogasaṃgraha*,[132] *Prayogasāra*,[133] *Prayogasiddhi*,[134] *Rājamārtaṇḍīya*,[135] *Rājavaidehīya*,[136] Ratnajitasena,[137] *Ratnāvalī*,[138] *Śacīmata*,[139] *Sahasrayoga*,[140] *Sahasrayogī*,[141] *Sahasrayogīvyākhyā*, Śākyabhikṣu,[142] Śālihotra,[143] *Saṃgraha*, *Sārārṇava*,[144] *Sārasaṃkṣepa*,[145] *Sārāvalī*,[146] *Sarvatrāta*,[147] *Sarvatrāta*,[148] *Śāstrārṇava*,[149] *Sauśruta*, *Siddhasāra*,[150] *Siddhayoga*,[151] *Siddhayogasamuccaya*,[152] *Siddhayogasāra*,[153] *Śikhāyoga*,[154] *Śivaratnacūḍāmaṇi*,[155] *Ślokālaṃkāra*,[156] *Śrīdharamuṣṭi*,[157] *sūdaśāstra*,[158] *Sundarī*,[159] Suśruta, *Uttaragārgya*,[160] Vāhaṭa, *Vaidehīya*,[161] Vaitaraṇa,[162] Vararuci,[163] *Vārttika*,[164] *Vṛddhahāriścandra*,[165] *Vṛddhahārīta*,[166] *Vṛddhakāśyapa*,[167] *Vṛddhakharanāda*,[168] *Vṛddhaśravas*,[169] *Vṛddhavāhaṭa*, *Vṛddhavideha*,[170] Vyasanagupta,[171] *Yoga-*,[172] *Yogakaraṇḍa*,[173] *Yogamālā*,[174] *Yogāmṛta*,[175] *Yogarāśi*,[176] *Yogaratnā-*,[177] *Yogasāra*,[178] *Yogasārasamuccaya*,[179] *Yogaśataka*,[180] *Yogasiddhi*,[181] *Yogāśīti*,[182] *Yogasudhākara*,[183] and *Yogayukti*.[184]

Mentioned in the text of the treatise are: *Amṛtamālā*,[185] Bhela,[186] *Brahmāṇḍa(purāṇa)*, Indu,[187] Jātukarṇa,[188] Kṛṣṇātreya,[189] Manu, Ravigupta,[190] Suśruta,[191] Vāhaṭa,[192] Videhādhipa,[193] and Yājñavalkya.[194]

The *Yogaratnasamuccaya* is quoted, anonymously, in the *Kairalī* commentary on the *Aṣṭāṅgahṛdayasaṃhitā*.[195]

Worthy of attention are the following features in the field of nosography: the mention of the disease called asthisrāva (9.721–761); praseka (11.194–204) as a separate disease; the use of the synonyms vāhikā (14.65, 70, 72), nirvāhikā (14.61 and 77), niścāra (14.62), niścāraka (14.78 and 89), and bimbisī (14.64, 74, 79) for pravāhikā; the disease jalakūrma (17.589–632), probably identical with jalodara; the description of six types of pāṇḍuroga (the sixth arising from loṣṭavibhedana), quoted from a text called *Mahāyāna* (18.3); the elaborate description of masūrikā, on which subject the *Bhāradvājīya* is quoted (18.410–418), which states that it is of nine types, but of eight only according to some of the authorities; in a citation from Aurabhra (18.419–427) eight types are described: masūrikā, sarṣapikā, ajakā, kodrava, kaṅgu, visphoṭaka, pākī, and visarpī; remarkable is a formula against masūrikā said to be paścātyajanapadaprasiddha, i.e., well known in western countries; an epidemic form of masūrikā is also referred to (18.467); the description of a disease, distinct from masūrikā, called kṣudramasūrikā or matsyanāsā (18.508–514), quoted from an authority named Bāhusaṅghā; śītapitta is regarded as identical with amlapitta (18.488–489); makkalla is called markala (21.233, 236, 238); the description of a disease called vaṣṭiroga, erroneously diagnosed by others as aṣṭhīlikā, granthi or raktagulma (21.302–312); the description of an unperforated anus in a newborn child (21.330: advāraka guda) from a work called *Prayogasiddhi*;[196] an elaborate description of the disease called kṣīrālasaka (21.387–396ab) and its treatment (21.396cd–407); the religious treatment of fever in children (21.421–432); a children's disease called mukhadūṣikā, characterized by the appearance of pustules on the face (21.496), quoted from the *Prayogasiddhi* again;[197] a children's disease called nicūrikā, characterized by the repeated appearance and quick disappearance of blisters (21.499); a children's disease called viṣavajra, characterized by burning and by itching pustules (21.500); a children's disease called tuṇḍa, characterized by an inflamed navel (21.503–504);[198] the description of a disease called kuṇḍāla, three varieties of which are distinguished (21.507–517); the description of several series of bālagrahas and the measures to ward them off, quoted from the *Nārāyaṇīyabālatantra*,[199] Jīvaka's *Bālatantra*,[200] and an unspecified work (*tantrāntara*);[201] twenty-four diseases of the eyelids are enumerated and described (24, prose between 55 and 56), nine diseases of the junctures (sandhi) of the eyes (24, prose between 90 and 91), thirteen diseases of the white portion (śuklabhāga) of the eyes (24, prose between 99 and 100), five diseases of the black portion (24, prose between 135 and 136; 24.136–150), twenty-seven diseases of the dṛṣṭi (24, prose between 244 and 245), sixteen diseases affecting the whole eye (24, prose between 395 and 396), twenty-five diseases of the ears (24, prose between 515 and 516; 24.516; prose between 24.516 and 517), eighteen diseases of the nose (24.595–602 and prose passages), eleven diseases of the lips (oṣṭharoga; 24, prose between 645ab and cd), ten diseases of the teeth (dantaroga; 24, prose between 651 and 652), thirteen diseases of the roots of the teeth (dantamūlaroga; 24, prose between 689 and 690), six diseases of the tongue (jihvāroga; 24, prose between 742 and 743), eight diseases of the palate (24, prose between 763 and 764), eighteen diseases of the throat (kaṇṭharoga; 24, prose between 772 and 773), eight diseases affecting the whole oral cavity (sarvamukhagataroga; 24, prose between 800ab and cd), and nineteen diseases of the head (śiroroga; 25, prose at the beginning of the chapter).[202]

Noteworthy names of medicinal plants are: ākūlabṛhatī (8.549), alakṣmī (8.575),

amlabṛhatī (8.549),[203] candrī (29.395),[204] dhurdhūra (26.122),[205] galocikā or gulojikā (8.538),[206] gandhalakṣmī (8.574),[207] gauḍī (8.585),[208] ghanastanī (29.395), haritamañjarī (8.686),[209] hemākulī (6.116), hrasvavallī (8.558), indurā (8.579), jharasī (8.527–530),[210] kāravallī (19.311),[211] karavanda (8.794 and 988),[212] kṛṣṇanimba (8.636), kṣudrapanasa (8.725),[213] kūkavṛkṣa (15.270), lakṣmī (8.572–574),[214] lāvaṇḍikā (8.588), mahātila (8.325), mahāvallī (8.558),[215] mṛdupuṣpī (8.577), paṅktimūlī (20.445), paphaṇa (8.799), papphaṇa (21.218),[216] parvapattrā (8.579), pītabarbara (8.593), raktakāṇḍā (8.577), sadābhadrā (21.520),[217] siñcantī (8.778),[218] śramaṇī (8.580), śuklabarbara (8.593),[219] sūrāphala (8.799), śvetapākī (8.788), śvetavallī (8. 558), śvetī (29.395), toraṇa (8.798), toyalakṣmī (8.575), ucchāphala (8.799), uttamakanyā (8.567; 19.189, 302, 317), uttuṇḍakī (8.813),[220] vanasūraṇa (8.656),[221] vraṇarohī (21.520),[222] and vṛttapattra (8.581).[223]

The name of the author is mentioned at the end of the work. The maṅgala at its beginning indicates that he was a devotee of Viṣṇu, and probably a resident of Southern India because Śrīraṅga[224] is referred to.

Anantakumāra's sources prove that his date is later than those of Tīsaṭa, Candraṭa, and Bhojarāja, which means that he composed his work after the eleventh century. This upper limit is confirmed by a quotation from the *Mādhavadravyaguṇa*.[225] The lower limit is difficult to establish in the absence of references to Anantakumāra by later authors. The quotations from a *Yogaratnasamuccaya* in the *Yogaratnākara* are not of much avail, because Candraṭa's work of that name may be cited. The period of composition depends on the dates of the *Tantrasārasaṃgraha* which is quoted as *Nārāyaṇīya*, and the *Sahasrayoga*, also quoted by Anantakumāra. Anantakumāra's work may therefore have been compiled after the fifteenth or sixteenth centuries.

ANTARAṄGANĀRĀYAṆADĀSA: *Ratnamālā*.[226]
APRAMEYA: (1) *Vaidyagrantha*[227] and (2) *Viṣavaidya*.[228]

ARUṆAGIRI, son of Rāmacandra, of Bhārgavagotra: *Guṇapāṭha*,[229] a treatise on materia medica and some other subjects, such as anatomy and the constitutions.[230] The author, who claims to be well versed in Vedānta, salutes Aruṇādrīśa, and was therefore probably a resident of Tiruvaṇṇāmalai in the South Arcot district of Tamiḻnāṭu or of some part near it.[231] This is confirmed by the dedication of his *Vaidyasāramu* to two deities residing in Aruṇācala.[232]

Aruṇagiri was a contemporary of king Devarāya II (A.D. 1423–1446) of Vijayanagara[233] and thus belongs to the fifteenth century.[234]

Several members of Aruṇagiri's family lineage were active as writers of literary works.[235] Ḍiṇḍimabhaṭṭa I, a maternal uncle, was the court poet of Devarāya I (A.D. 1406–1422); Rājanātha Ḍiṇḍima II wrote the *Sāḷuvābhyudaya*,[236] and Ḍiṇḍima Sārvabhauma, his son, the *Rāmābhyudaya*;[237] Aruṇagiri II was the author of the *Vīrabhadravijaya*,[238] and Rājanātha III of the *Acyutarāyābhyudaya*[239] and *Bhāgavatacampū*.[240]

AŚOKAMALLA(RĀJA): *Nighaṇṭusāra*.[241]

BĀHAḌA: *Saṃnipātanidānacikitsā*.[242]
BĀHAṬA: *Rasamūlikānighaṇṭu*.[243]

BAKHAT SINGH: *Bakhatvilāsa*. The author was a king of Ajaigarh State in Madhya Pradeś.[244]

BALABHADRA: *Jvarapaddhati*.[245]

BĀLĀCĀRYA: *Suśrutasāra*,[246] a summary of the *Sūtra-* and *Nidānasthāna* of the *Suśrutasaṃhitā*, with an attempt at summarizing other parts as well. The author praises Candraṭa, Caraka, Dhanvantari, Suśruta, and Vāgbhaṭa in the opening lines.[247]

The *Suśrutasāra* is referred to in Lakṣmīkuśala's *Vaidyakasāraratnaprakāśa*.

BALIBHADRA: *Vṛndasaṃgrahaśeṣa*.[248]
BAṆĀRATANAYA: *Bālabodha*.[249]
BHAIRAVĀNANDA: *Tantrasārāvalī*.[250]

BHĀRATAKARṆA: *Tattvakaṇikā*, a part of a larger work called *Siddhauṣadhasaṃgraha*.[251] The author claims in the first few lines that āyurvedic medicines have a slow action, whereas the drugs he is going to describe cure diseases within a short time.[252] This means probably that the treatise mainly deals with rasauṣadhas.

BHĀRGA RĀMA: *Cikitsānavanīta*.[253]
BHĀRGAVĀCĀRYA: *Nāmasaṃgrahanighaṇṭu*.[254]
BHĀSKARA: commentary on the *Rasabhedīyaprastārapradarśana*.[255]
BHAVADEVA: *Saṃnipātacandrikā*.[256]
BHAVĀNĪMIŚRA: *Guṇaratnamālā*.[257]
BHĀVAŚARMAN: *Vyādhividhvaṃsinī*.[258]
BHĀVASIṂHA: *Vyādhividhvaṃsinī*.[259]

BHIṢAGĀRYA: *Abhidhānamañjarī*,[260] a nighaṇṭu, chiefly concerned with synonyms of medicinal substances.

The work, the title of which is given at the beginning and end, is written in a variety of metres, and consists of 1,323 verses, arranged in four sections (varga). As stated by the author himself in the introductory and concluding verses, it is based on Vāgbhaṭa's *Aṣṭāṅgahṛdayasaṃhitā*, in which respect it resembles the *Aṣṭāṅga-* and *Madanādinighaṇṭu*. The first three sections correspond to three chapters of the Sūtrasthāna of the *Aṣṭāṅgahṛdayasaṃhitā*, which are mentioned by name in Bhiṣagārya's introduction, namely the chapters called śodhanādigaṇasaṃgraha (Sū.15), annasvarūpavijñānīya (Sū.6), and dravadravyavijñānīya (Sū.5).

The first and longest section, called madanādigaṇavarga, has thirty-two subsections and is chiefly devoted to medicinal plants. It agrees rather closely with the śodhanādigaṇasaṃgraha chapter of Vāgbhaṭa. Bhiṣagārya's groups of drugs are the same as those of Vāgbhaṭa, but he omits one of them (A.h.Sū.15.7), a compound group which

enumerates seven vargas with the same therapeutic effects.[261] Repetitions, which are frequent in Vāgbhaṭa's groups, are avoided by Bhiṣagārya, who also leaves out groups of drugs, such as, for example, triphalā.

Rather long strings of synonyms for each plant mentioned by Vāgbhaṭa are found in this work; another characteristic is the frequent distinction of more than one variety of plants regarded as of one single type in the *Aṣṭāṅgahṛdayasaṃhitā*. The therapeutic actions of the groups of drugs are listed at the end of each subsection, in conformity with Vāgbhaṭa.

The second section, called śūkadhānyādivarga, corresponds to Vāgbhaṭa's annasvarūpavijñānīya chapter. It has seven subsections, dealing with grains (śūkadhānya), pulse, sesamum, flax, etc. (śimbīdhānya), prepared foods (kṛtānna), flesh of various animals (māṃsa), vegetables (śāka), fruits (phala), and various medicinal substances, such as salts, etc., along with groups of substances, such as pañcagavya, etc. (auṣadha). The fourth subsection of section two differs from the corresponding verses of Vāgbhaṭa by including numerous anatomical terms.

The third section, called toyādivarga, agrees with the dravadravyavijñānīya chapter of Vāgbhaṭa. It consists of five subsections, concerned with types of water (toya), milk and various dairy produce (kṣīra), the sugarcane and its products (ikṣu), oils (taila), and alcoholic drinks, including fermented beverages (madya). Some of the subsections contain more material than found in Vāgbhaṭa.

The fourth section, called saṃkīrṇavarga, which has no corresponding part in Vāgbhaṭa's work, has six subsections. The first of these is rather heterogeneous. The author remarks that he will enumerate in this subsection the synonyms of substances not yet dealt with.[262] It consists of synonyms of various organic and inorganic substances, odoriferous plants, tissues, colours, etc. The second subsection, called saṃjñāvarga, gives sets of names for plants already described in the first section; agni and all its synonyms may, for example, be used to designate citraka, śīta and all it synonyms designate candana, etc. The third subsection, called ekārthavarga, is a list of names which are employed for only one plant. The fourth subsection, called dvyarthavarga, opens the homonymic part of the *Abhidhānamañjarī*, in which the meanings of the anekārthas are, as usual, given in the locative. The fifth subsection, called tryarthavarga, is a list of names of medicinal substances which have three meanings each. The sixth and last subsection, the caturādyarthavarga, begins with series of names of medicinal substances which have four, five, etc., meanings each. The last part contains verses on the synonyms for weights and measures, on rules prescribing the quantities of the ingredients of compound drugs, and on the synonyms for particular medicinal preparations.

The concluding verses give information on the author and his descent. The work ends with verses in praise of Dhanvantari, who was incarnated again as Divodāsa in Kāśī.

The *Abhidhānamañjarī* is profusely quoted as *Mañjarī* in the Kairalī commentary on the Uttarasthāna of the *Aṣṭāṅgahṛdayasaṃhitā*. Bhiṣagārya is praised in the anonymous *Tantrayukti*.

Noteworthy are the varieties of plants[263] regarded as of one type by Vāgbhaṭa: two types of apāmārga (76–77): apāmārga and karkaṭapippalī; two types of āragvadha[264] (56–57): āragvadha and rājāhva[265] = karṇikāra; two types of ārdraka (343–344): ārdraka and āmrārdraka;[266] two types of arka (294–295): arka and rājārka; two types of ativiṣā (329–330): ativiṣā and śvetaraktaviṣā; five types of balā (98–102): balā, bṛhadbalā, atibalā, nāgabalā, kākabalā; two types of bhallāta (356–357): bhallāta and jambukabhallāta; two types of bhallūka (268–269): bhallūka = śyonāka, and phalgu; three types of brāhmī (400–402): brāhmī, maṇḍūkaparṇī, mahāmaṇḍūkaparṇī; two types of caṇḍā (395–396): caṇḍā and pītapuṣpikā; two types of cillī (807–808): cillī and hrasvapattrā cillī; three types of dantī (40–42): dantī, dravantī, nāgadantī;[267] two types of darbha (245–246): darbha and rājadarbha; two types of devadāru (64–65): devadāru and mahādāru; three types of dūrvā (103–104): dūrvā,[268] sitadūrvā[269] and gandhadūrvā; two types of gundrā (110–111): gundrā and gundrāṇī; two types of hapuṣā (320–321): hapuṣā[270] and śvetaphalā hapuṣā;[271] many types of kadalī (282–290); three types of kampilyaka (58–60): kampilyaka, hemadugdhā, kaṅkuṣṭha; three types of karañja (25–27): karañja, vallīkarañja, pūtīka; two types of kāsamarda (314–315): kāsamarda[272] and sitakāsamarda; two types of kaṭurohiṇī (194–195): kaṭurohiṇī and pītarohiṇī; two types of khadira (215–216): khadira and gaurakhadira; three types of kharabusa (311–313): kharabusa = droṇa,[273] rājakṣavaka, mahādroṇa; four types of kośātakī (22–24): kośavatī, pītapuṣpakośavatī, karkoṭakī = dhāmārgava, dhārākośātakī;[274] two types of kurūṭa (270–271): kurūṭaka and kaṇḍūla;[275] two types of kuṣṭha (62–63): kuṣṭha and kaubera; three types of kuṭheraka (305–307): white-flowered = vaikuṇṭha, dark-flowered = parṇāsa, and mahākuṭheraka; four types of laśuna (822–825): laśuna, kṣīrapalāṇḍu, gṛñjanaka, raktalaśuna; two types of madana (1–2): madana and piṇḍītaka; two types of meṣaśṛṅgī (221–222): meṣaśṛṅgī and setudruma;[276] two types of misi (69–70): misi and miśreyā; three types of mūlaka (817–819): mūlaka, cāṇakya, cañcuka; three types of nimba (5–7): nimba, nimbaraka = dreka,[277] kṛṣṇanimba;[278] two types of palāśa (226–227): palāśa and vallīpalāśaka;[279] three types of pāṭalī (198–200): pāṭalī, nīlapuṣpa pāṭala, śvetapāṭalī; two types of paṭola (192–193): paṭola and kūlaka; two types of pattūra (815–816): pattūra and kṣetraja pattūra; two types of pūga (233–234): pūga and mahākramuka; two types of rāsnā (66–67): rāsnā and mādhavapuṣpī; four types of śaṅkhinī (48–51);[280] two types of sarala (277–278): sarala and tarala; four types of sarṣapā (36–39): sarṣapā, siddhārthaka, lohitasarṣapaka, kṛṣṇasarṣapā; two types of śiṃśapā (219–220): śiṃśapā and kuśiṃśapā;[281] two types of snuhī (46–47): snuhī[282] and veṇī;[283] three types of sruvavṛkṣa (202–204): sruvavṛkṣa, kākataru, tāmrasāra; two types of śyāmā (44–45): śyāmā and mahāśyāmā; three types of śyāmāka (440–442): śyāmāka, toyaśyāmāka, hastiśyāmāka; two types of tagara (96–97): tagara and bhūmikadamba; the description of takkolaka and mārīca (387–388); four types of tāla (223–225): tāla,[284] hintāla,[285] mahātāla,[286] mṛtyuphalākhya hintāla;[287] two types of tejasvinī (298–299): tejovatī and pārāvatapadī; two types of tilvaka (54–55): tilvaka[288] and pratitilvaka; three types of tinduka (373–374): tinduka, kṛṣṇatinduka, kākenduka; two types of trapusa (11–12): trapusa and vanaja trapusa; three types of vaṃśa (812–814): vaṃśa, tṛṇavaṃśa = poṭagala, kīcaka; two types of viśālā (9–10): viśālā and mahāphalā viśālā; two types of vṛścīva (154–155): vṛścīva and śvetamūla vṛścīva.

The saṃkīrṇavarga refers to many plants which are not mentioned in the preced-

ing parts of the work; examples are: brahmadaṇḍī (1085), gandhataraṇī (1059), japā (1130), pītayūthikā (1054),[289] rāmataraṇī (1055),[290] śaṅkhayūthikā (1053),[291] taraṇī (1054),[292] vanavāsantī (1052), and vāsantī (1051).[293]

Information on the author is chiefly found in the concluding verses of his work, where he mentions that his name is Nārāyaṇa Bhiṣaj, also called Bhiṣagārya. His father was a physician, Viṣṇu by name,[294] of Bhāradvāja gotra,[295] who lived in Uṇṭurur,[296] situated three yojanas to the east of Gokarṇa.[297]

The verses at the end of the *Abhidhānamañjarī*, which inform us about the descent of Bhiṣagārya, are repeated at the end of the anonymous *Tantrayukti*, where it is added that Nīlamegha, the author of the *Tantrayuktivicāra*, was a descendant of Bhiṣagārya. The *Abhidhānamañjarī* is therefore earlier than the *Tantrayuktivicāra*. It is also anterior to the *Kairalī* commentary on the *Aṣṭāṅgahṛdayasaṃhitā*, which often quotes it. The materia medica described in the *Abhidhānamañjarī* points to a rather late date. Five types of balā, for example, would be very unusual for an early work.[298] The numerous varieties mentioned are, in general, in favour of assigning the work to a period after the composition of the *Rājanighaṇṭu* and *Bhāvaprakāśa*, i.e., after the sixteenth century.

BHĪSAṬĀCĀRYA: quoted as a medical author by Raghunandana Bhaṭṭācārya in his *Malamāsatattva*.[299]

BHOLĀNĀTHA: *Āyurvedoktadravyaguṇābhidhāna*.[300]
BILHAṆA: *Manoramāvaidyaka*.[301]
BODHIKAVI: *Paryāyamañjarī*.[302]

BRAJANĀTHAŚARMAN: *Vaidyakasāroddhāra*.[303]

This work is a therapeutic treatise, divided into twenty-three chapters (pariccheda).[304] Chapters one to eighteen deal with the treatment of the diseases, arranged according to the order established by Mādhava. Chapter nineteen is concerned with the śodhana and māraṇa of eight dhātus (suvarṇa, raupya, tāmra, sīsaka, vaṅga, kāṃsya, lauha, and abhraka), the preparation of rasasindūra, and the purification of a large number of medicinal substances. Chapter twenty is about rasāyana and vājīkaraṇa. Chapter twenty-one is devoted to substitutes for a number of drugs, substances regarded as essentially beneficial (svabhāvato hitāni), and a few mantras thought to increase the action of drugs. Chapter twenty-two deals with a long series of medicinal preparations,[305] as well as with milk and dairy products, urine, and oils. Chapter twenty-three is about pañcakarman and related procedures, and also about the various ways of examining a patient.[306]

Prescriptions of an āyurvedic type and rasayogas are found side by side in the *Vaidyakasāroddhāra*. The author incorporated a few mantras.[307] The materia medica does not present noteworthy features.

Sources are occasionally referred to: *Bhairavatantra* (276),[308] Caraka (363 and 400),[309] *Rasārṇava* (79), *Ratnapradīpa* (24), and Vāgbhaṭa (362).[310]

Snāyuroga (236), somaroga[311] and mūtrātisāra (270–272) are known to the author. The chapter on strīroga (16) gives prescriptions which tighten the vagina, remove a foul smell, increase fertility, facilitate delivery, etc. Chapter nineteen describes the purification of jayapāla, the seeds of dhustūra,[312] the seeds of vṛddhadāraka, kāphiṅga,[313] viṣatinduka and viṣamuṣṭika, the milky sap of snuhī, bhallātaka, guggulu, hiṅgu, dantī, trivṛt, citraka, devaviṣa,[314] the bile of various animals, rasona,[315] śakrāśana,[316] and leeches.

The author does not mention his name. He is called Brajanāthaśarman by the copyist and was evidently a resident of Assam.[317]

The date of composition remains unknown. The only complete MS dates from 1850/51.[318] The editors of the *Vaidyakasāroddhāra* assume that its author is later than Gopālakṛṣṇa, who wrote the *Rasendrasārasaṃgraha*, and Śivadāsasena.[319]

BṚHASPATI: *Jvarāvalī*.[320]
CAKRAPĀṆIDATTA: *Aśeṣatantrasaṃgraha*.[321]

CAKRAPĀṆIDATTA, a namesake of the famous commentator on the *Carakasaṃhitā*, was the author of a medical lexicon, called *Śabdacandrikā*.[322]

The *Śabdacandrikā*[323] enumerates only strings of synonyms, adding the Bengali names of medicinal plants in the margin.[324] The work consists of 734 verses, arranged in nine chapters (varga). The maṅgala is addressed to Heramba.[325]

Chapter one (vṛkṣādivarga; 360 verses), by far the longest, deals with medicinal plants (4–337), types of plants, and names for their parts. Chapter two (svarṇādivarga; twenty-eight verses) is about inorganic substances, and some of vegetable or animal origin,[326] chapter three (ghṛtādivarga; twenty-six verses) about dairy, products of the sugarcane, rice and other cereals, pulse, and some more articles of food, chapter four (bhūmyādivarga; fifty-seven verses) about kinds of earth, poisons, fishes and other aquatic animals, the elements, sun, moon, and various other subjects, chapter five (manuṣyavarga; fifty-six verses) about anatomical terms, chapter six (siṃhādivarga; ninety-six verses) about mammals, birds, and some other classes of animals, chapter seven (madyādivarga; thirty-two verses) about alcoholic and other fermented fluids, prepared dishes, etc., chapter eight (pañcakaṣāyādivarga; thirty-six verses) about a number of medical technical terms, and chapter nine (triphalādivarga; forty-three verses) about groups of substances.

The *Śabdacandrikā* was obviously modelled upon the *Amarakoṣa*. The major part of chapter one (4–311 and 338–360) corresponds to the vanauṣadhivarga of the latter work; it describes the plants in the same order and repeats the same synonyms, to which, however, many new ones are added. Verses 325cd–337 of chapter one, on lotuses and water-lilies, correspond to those on the same subject of the vārivarga of the *Amarakoṣa*. Chapters two and three agree with verses from the vaiśyavarga. The subjects of chapter four are mostly from the vārivarga, those of chapter five from the nṛvarga, those from chapter six from the siṃhādivarga. The verses of chapter seven agree partly with the śūdravarga, and those of chapter eight partly with the vaiśyavarga. On all these subjects the *Śabdacandrikā* adds synonyms from unknown sources to those found in Amarasiṃha's work. The names for groups of substances, found in chapter nine, are absent from the *Amarakoṣa*.

Cakrapāṇidatta acknowledges his indebtedness to Amarasiṃha's lexicon in one of the introductory verses. The concluding verse refers physicians in search of information not contained in the *Śabdacandrikā* to lexica like the *Śabdārṇava*.[327]

The *Śabdacandrikā* has been used as a source in the *Śabdakalpadruma*, *Vācaspatya*, and *Vaidyakaśabdasindhu*.

Medicinal plants added to those mentioned in the *Amarakoṣa* are: akheḍa (1.321cd), arkamūlā (1.316ab), aśvaśākhoṭa (1.18ab),[328] bhaṅgā (1.260ab and 3.25cd),[329] bhavya (1.14cd),[330] bhūmicampaka (1.87ab),[331] dhananḍa (1.16cd),[332] dugdhapucchī (1.320cd), gaṇḍagātra (1.14ab),[333] ghṛtamaṇḍā (1.315cd), grīṣmasundaraka (1.246cd),[334] hastiśuṇḍā (1.98ab),[335] jīvala (1.16cd),[336] kaṅkālī (1.317ab),[337] keśadhāriṇī (1.323ab), khaḍgakoṣa (1.324cd), kṛṣṇakhadira (1.65cd), kṣudrajīra (1.314cd), kukkura (1.323cd),[338] kurumba (1.13ab),[339] laṅkāsthāyī (1.324ab), lavanī (1.14ab),[340] limpāka (1.12cd),[341] madhukarkaṭikā (1.12cd),[342] mahākaṇṭakinī (1.322cd),[343] mahārdra (1.15ab),[344] paruṣa (1.14cd),[345] raktakhadira (1.65cd), rāmadūtī (1.312),[346] sarpākṣī (1.317cd),[347] śītalī (1.314ab), śṛgālakaṇṭaka (1.247cd),[348] śuklāguru (1.214ab), sumadra (1.15ab), śvasuta (1.247cd), trikaṇṭa (1.322ab),[349] vāmana (1.316cd), and veśadāla (1.319cd).

Some synonyms in Cakrapāṇidatta's work are sanskritized forms of vernacular names, e.g., cakrakulyā,[350] helañcī,[351] kucikā,[352] and vāvala.[353] A few terms are of Persian origin, for example rogana[354] and vātiṅgana.[355]

Some series of synonyms show that Cakrapāṇidatta's identifications of a number of medicinal plants deviate from those of other medical lexica. Some of the names of prasāraṇī (1.279) prove that he had the plant *Paederia foetida* Linn. in mind;[356] śrīhastinī, often regarded as a synonym of kuruṇṭikā,[357] is regarded as identical with hastiśuṇḍā.[358] Confusion is created in some cases by mentioning one and the same name for different plants: pṛśniparṇī is, for example, the name of a particular plant (1.140–142), as well as a synonym of śālaparṇī (1.188cd–189ab).

The Cakrapāṇidatta who wrote the *Śabdacandrikā*[359] cannot be the same as the author of the *Cakradatta*, *Āyurvedadīpikā*, etc., since the *Śabdacandrikā* describes bhaṅgā[360] and many other plants unknown to him. The *Śabdacandrikā* is also acquainted with the difference between the fruits called bhavya and karmaraṅga,[361] and with those called gaṇḍagātra and lavanī; the latter two are not indigenous and were introduced into India from South America.

The inclusion of bloodletting among the procedures called pañcakarman (8.2cd–3ab) also speaks against an early date of the work. The same applies to synonyms like sukhānā and khīlānā for cullī (a fireplace; 8.8). Moreover, it is more than unlikely that an author like the earlier Cakrapāṇidatta, well versed in āyurveda, would base one of his works on Amarasiṃha's lexicon.

The materia medica of the *Śabdacandrikā* proves that the work has been written after the introduction of *Annona* species into India, i.e., after the advent of the Portuguese.

CAKRAPĀṆIMIŚRA: *Viśvavallabha*.[362]
CAMATKĀRA: *Vaidyaprakāracamatkārarasāyana*.[363]

CHOYI VAIDYAR of Pāloḷī: *Cikitsāpraveśaka*.[364]

CIDGHANĀNANDANĀTHA: *Satkarmasaṃgraha*.[365] The work begins with a maṅgala addressed to Ādinātha, who created the mahākālajayaśāstra; an introductory verse praises the author's guru, Gaganānandanātha. The treatise is said to deal with the curing of diseases by means of yogic practices, helped by medicines. At the end of the work a dhvajabasti is described, employed in the treatment of aśmarī and mūtrakṛcchra.

Sources mentioned are the works of Gorakṣa and other Mahāsiddhas and Nāthas.[366]

The *Satkarmasaṃgraha* shows the influence of Śrīnivāsabhaṭṭa's *Haṭharatnāvalī*.[367]

CIKKAṆAPAṆḌITA: *Vaidyanighaṇṭusāra*.[368]
DAKṢA, son of Bāṇāra: *Yogasāra*.[369]
DAKṢARŪPA: *Pathyāpathyavidhi*.[370]

DĀMODARA: *Bhīmavinoda*.[371] According to P. Cordier, this treatise, also called *Bhīmasenavinoda*, consists of two parts, a cikitsākhaṇḍa of fifty-four and an uttarakhaṇḍa of two chapters; karmavipāka and Tantric elements abound in its therapeutics, which make it resemble the *Vīrasiṃhāvaloka*.[372] P.V. Sharma added to this description that it is an extensive work, later in date than the *Bhāvaprakāśa*, since phiraṅgaroga and rasakarpūra are mentioned in it.[373]

DĀMODARA(MIŚRA): *Harivandanasaṃgraha*.[374]
DĀMODARA: *Rāmabāṇa*.[375]
DĀMODARA: *Yogaratnaśekhara*.[376]

DĀMODARABHAṬṬA CITTAPĀVANA, son of Raghunātha and Jānakī: *Āyurvedasaṃgraha*.[377]

DĀNADĀSA: *Āryaphatahadeśabhiṣagdānadāsavaidyakācāra*. This treatise, preserved in the Tibetan Tanjur under the title of *Ḥhags-yul pha-ta-haḥi sman-pa Da-na-da-saḥi sman-bcos-rnams*, and attributed to the Indian physician Dānadāsa from the country called Phataha, is a short formulary. It contains a number of magical squares and mentions opium.[378]

DATTASŪRI: *Parahitasiddhānta*.[379]
DĀŪJĪ: *Vaidyaka(kośa)*.[380]
DAULATAKHĀN, son of Aliphkhān: *Daulatavinodasārasaṃgraha*.[381]
DAYĀRĀMA: *Ārogyamālā*.[382]
DAYĀRĀMA: *Dayāvilāsa*.[383]
DAYĀŚAṂKARA: *Cikitsākalikā*.[384]

DEVADĀSA, son of Devadatta and Nāgamā: *Cikitsāmṛtasāgara* or *Karmavipāka-cikitsāmṛtasāgara*, a large compilation, arranged in more than seventy chapters (taraṅga); the diseases and their treatment are discussed from a medical, religious, and astrological point of view; the author has extensively drawn upon the *Ātreyasaṃhitā*, *Mādhavanidāna*, *Madhukośa*, and *Śārṅgadharasaṃhitā*.[385]

DEVĪCANDRAVYĀSA: *Paṭṭiprakāśa*.[386]
DEVĪDATTA: *Vaidyaratnāvalī*.[387]
DHANAÑJAYA: *Tailāntatailanirmāṇavidhi*.[388]
DHANVANTARI: *Vaidyabhāskarodaya*.[389]

DHANVANTARIKARA: *Āyurvedasārāvalī*, a comprehensive medical work that appears to be a modern compilation. The author, a Vaidya by caste, hailed from East Bengal.[390]

DHARAṆĪDHARAVYĀSA: *Dravyaguṇasārasarvasva*.[391]
DHĪRAJARĀJA: *Cikitsāsāra*.[392]
ḌHUṆḌHIRĀJA(KAVI): *Añjanavyākhyā*(?).[393]
GAHANANĀTHA: *Yogaratnākara*.[394]

GAṆAPATIVYĀSA, son of Mahīdharavyāsa: *Yoga(sāra)samuccaya* or *Vaidyakaśāstra-sārasaṃgraha*,[395] a work in seven chapters: rasavīryādhikāra, dhātuvīryaśodhanamāraṇa, saṃnipātakṛmicikitsā, atisārādicikitsā, mūtrakṛcchrādicikitsā, śvāsādicikitsā, and kuṣṭhādicikitsā.[396]

Vyāsagaṇapati's *Yogasamuccaya* is one of the sources of the *Rasayogasāgara*.

GANDHE UPĀDHYĀYA: *Cikitsābhidhāna* or *Cikitsāvidhāna*.[397]

GAṆEŚABHIṢAJ:[398] (1) *Arthaprakāśikā*, a commentary on the *Mādhavanidāna*;[399] (2) *Cikitsāmṛta*;[400] (3) *Sāraratnāvalī*;[401] (4) *Yogacintāmaṇi*.[402]

GAṆEŚABHIṢAJ, son of Hari(nātha) Bhaṭṭa of Dvārakā, and grandson of Śrī Kṛṣṇa of Śrīvatsagotra:[403] (1) *Śabdamālā*;[404] (2) *Sārasaṃgraha*.[405]

GAṆEŚADĀSA: *Dravyādarśa*.[406]

GAṄGĀDHARA, son of Candanārya: *Bheṣajakalpa*.[407] This work was translated into Telugu by Cilkmaṟṟi Veṅkaṭācārya, who lived in the middle of the sixteenth century.[408]

GAṄGĀDHARA, or Jośī Vaidya Bāpū Gaṅgādhara: *Nighaṇṭuprakāśa*, a probably modern, alphabetically arranged dispensatory.[409]

GAṄGĀDHARA, son of Dāsa: *Yogaratnāvalī*, in twelve chapters, on materia medica, the therapy of various diseases, and metallic preparations.[410] The titles of the chapters are: (1) rasādiguṇavarṇana; (2) auṣadhīnāṃ guṇavarṇanam; (3) rasadhātumiśraguṇavarṇana; (4) rasarājaśodhana; (5) dhātuśodhana; (6) rogāṇāṃ cikitsāvidhiḥ; (7) atisārādīnāṃ vidhiḥ; (8) rogarājādi; (9) kuṣṭhādividhi; (10) pramehādividhi; (11) vājīkaraṇa; (12) kaṣāyauṣadhīnāṃ yogādi.[411]

GAṄGĀDHARA: *Yogasāra*.[412]
GAṄGĀRĀMA: *Rājayogaratnākara*.[413]
GAṄGĀRĀMA: *(Sadyoga)ratnāvalī*.[414]

GAṄGĀRĀMADĀSA, pupil of Bhavānīdāsa Kavirāja: *Śarīraviniścayādhikāra*,[415] a work on the management of females during pregnancy.[416]

GAṄGĀŚARAṆA CATURVEDIN of Bharohiya: *(Bṛhaj)jaḍīprakāśa*, probably a modern work.[417]

GAṄGEŚA or VAIDYAVILOCANA: *Gaṅgeśavallabha*.[418]
GHANAŚYĀMASŪRI: *Guṇacandrikā*.[419]
GĪRVĀṆAYUDDHAVIKRAMA, son of Raṇabahādūra: *Vājirahasyaśataka*.[420]
GOKULANĀTHA: *Vaidyādarśa*.[421]

GOMMAṬA is regarded as the author of the *Merutantra* and, probably, a *Vaidyasaṃgraha*.[422] The *Merutantra*[423] is sometimes regarded as a medical work.[424]

Pūjyapāda is mentioned with reverence in Gommaṭa's *Merutantra*.

The *Merutantra* is quoted in the commentary on the *Siddhabheṣajamaṇimālā*. It is referred to in the *Dattātreyatantra* and Nāgārjuna's *Kakṣapuṭa*, and was one of the sources of Basava's *Śivatattvaratnākara*.

GOPĀLADĀSA: (1) *Cikitsākramakalpavallī*;[425] (2) *Cikitsāsāra*;[426] (3) *Gopālavinoda*;[427] (4) *Vaidya(sāra)saṃgraha*.[428]

GOPĀLADĀSA, son of Balabhadra: *Vaidyavilāsa*.[429]
GOPĀNANDA, son of Padmānandamiśra: *Vaṭakaśataka*.[430]
GOPĪNĀTHA: *Strīcikitsāpaddhati*.[431]
GOVARDHANA: *Vaidyakagrantha*.[432]
GOVARDHANA(NĀTHA): *(Nighaṇṭu)nāmāvalī*.[433]
GOVARDHANAVAIDYA: (1) *Cikitsāleśa*; (2) *Rogapradīpa*.[434]

GOVINDA, son of Keśava: *Karṣādipramāṇa*, a work on measures and weights used in medicine.[435]

GOVINDA: *Lokopakāraka*.[436]
GOVINDA: *Sārasamuccaya*.[437]
GOVINDADĀSA: *Govindadāsotsava*.[438]
GOVINDADEVA: *Yogoktilīlāvatī* or *Aṣṭāṅgahṛdaya(saṃhitā)*.[439]
GOVINDAMIŚRA: *Govindaprakāśa*.[440]

GOVINDARĀJA(KAVIRĀJA), son of Divākarapaṇḍita: *Camatkāracintāmaṇi*.[441]
GOVINDARĀMA TRIPĀṬHIN: *Bhāvaprakāśa*.[442]

GOVINDASENA's *Paribhāṣāpradīpa*[443] is a compilatory work on rules, definitions and technical terms (paribhāṣā), pertaining to the preparation of medicines and related issues.

The treatise consists of 615 verses, arranged in four chapters (khaṇḍa).

The subjects of chapter one (131 verses) are: introduction (1–6); weights and measures according to the kāliṅga (10–28) and māgadha (30–45) systems; rules about doubling the prescribed quantity if fresh drugs are used (46–52); the storage life of drugs (53–57); suitable and unsuitable places for the collection of fresh drugs (59–64); ritual prescriptions concerning their collection (65–68); parts of plants suitable to medicinal use (69–73); the appropriate seasons for the collection of particular plant parts (75–76); rules to be applied when particular details are wanting in the texts (77–87); substitutes for drugs which are not available (88–131).

Chapter two (77 verses) deals with the five types of kaṣāya (1–4): svarasa (5–16), kalka (17–19), kvātha (20–24), śīta (25–27), and phāṇṭa (28–30); types of pills (31–33); dosages and ratios of ingredients (34–57); the preparation of a yavāgū, maṇḍa, peyā, bhakta (58–67); the preparation of māṃsarasa and lākṣārasa (68–70); the prakṣepa, and related subjects (71–77).

Chapter three (197 verses) is concerned with snehapāka (1–51); guggulupāka (52–56); the processing of metals (lohapāka; 57–78); bhāvanā (79–81); some subjects connected with pāka (82–86); anupāna (87–107); dosages in children (108–114); suitable times for taking a medicine (115–137); generalities about therapeutic measures (138–145); groups of medicinal substances (146–165); characterizations of a number of substances, such as veśavāra, śukta, tuṣāmbu, etc. (166–197).

Chapter four (210 verses) gives an account of pañcakarman and some related topics: introductory matter (1–5); vamana (6–34); virecana (35–60); nasya (61–79); anuvāsana (80–116); nirūha (117–142); uttarabasti (143–161); dhūmapāna (162–174); kavala and gaṇḍūṣa (175–186); raktamokṣaṇa (187–192); mūrchana (193–201);[444] fragrant substances (gandhadravya; 202–210).

Authorities mentioned in the text are Kāśirāja (1.84) and Patañjali (3.63).

Sources from which the author borrowed verses are: *Amoghatantra* (3.74–77),[445] Ānandasena (4.48 and 160–161),[446] Caraka (3.139 and 187; 4.7), *Cikitsāmṛta* (4.132–133),[447] *granthāntara* (3.81; 4.31, 88, 89–92), Keśarīṭīkākāra (2.57),[448] Patañjali (3.67–70),[449] Śārṅgadhara (1.8, 49, 58, 70; 2.20–21; 3.25; 4.35, 121–131, 143–159, 175–182),[450] Trivikrama's *Lohapradīpa* (3.57–64),[451] Vāgbhaṭa (4.150–151), and Viśvāmitra (2.3).

The *Paribhāṣāpradīpa* is quoted in Āśubodha and Nityabodha Senagupta's commentary on the *Rasaratnasamuccaya* (8.1; 10.75).

Authorities and works quoted or referred to in the comments added to the text[452] are: Cakra (2.72), Cakradatta (2.72), Cakradatta's *Svasaṃgraha* (2.39 and 71), Cakrapāṇidatta (2.57 and 71), *Cakrapāṇikṛtasaṃgraha* (3.18–23), Caraka (2.39), Dṛḍhabala (4.119–120), guravaḥ (1.72–73; 2.31–33, 39, 52–53, 57, 72, 74, 76–77),

Kāśirāja (1.81–82 and 84), Maheśvara's *Cakraśeṣaṭīkā* (3.33),[453] Nārāyaṇadāsa (2.57),[454] Nārāyaṇāntaraṅga (2.57),[455] Niścalakara (1.46; 2.57; 3.18–23), Patañjali's *Lauhaśāstra* (3.24), Śārṅgadhara (2.57), Suśruta (2.39; 3.99; 4.117), Trivikrama (2.31–33), Vāgbhaṭa (4.117), and *Yaśodharavyākhyāna* (3.1–4).[456] Many quotations are from an unspecified source.

Āśubodha Vidyābhūṣaṇa Bhaṭṭācārya, one of the sons of Jīvānanda Vidyāsāgara, wrote a commentary on the *Paribhāṣāpradīpa*, which mentions a large number of variants of the text.

Āśubodha's commentary quotes from or refers to: Āḍhamalla (1.10–25), Amara (1.7 and 112), Cakra (4.67), Cakradatta (2.71), Cakrapāṇi (1.98), *Cakrasaṃgraha* (1.95; 3.178; 4.77, 80–81, 176–177), Caraka, Dṛḍhabala (3.4), Gaṅgādhara (3.4, 23–24, 27–30), Kaiyaṭa (1.2–3), Kātyāyana (1.4–5), Kharanāda (4.48), *Lauhapradīpa* (3.57–64), Patañjali (3.67–69), Rājavallabha (2.95), Śārṅgadhara (1.10–25; 3.25–26; 4.181), Śivadāsa and his *Cakraṭīkā* (1.95 and 98; 2.58, 61, 71; 3.74–78 and 115–127; 4.53), Śrīkānta (1.10–25),[457] Suśruta, *Taittirīyopaniṣad* (3.23–24), and Vāgbhaṭa (3.108–111; 4.189).

The author mentions his name, Govindasena, son of Kṛṣṇavallabhasena, in one of the introductory verses (1.2). His date cannot accurately be determined. Govindasena is later than Śārṅgadhara, Nārāyaṇadāsa, and Trivikrama, quoted by him, which means that he lived after the end of the fourteenth century, and earlier than A.D. 1873, the year of the first edition of his treatise.

GOVINDASŪNU: *Saṃnipātamañjarī*.[458]
GOVINDA VĀPAṬA: *Saṃnipātamañjarī*.[459]
GURUDATTASIṂHA: *Yogaratnāvalī*.[460]
HARĀNANDADĀSA KAVICANDRA: *Cikitsāsāradīpikā*.[461]
HARAPĀLA: *Vaidyaśāstra*.[462]
HARARĀMA: *Cikitsāsāra*.[463]
HARIBHĀRATĪ: *Cikitsasāra*.[464]

HARICARAṆASENA was the author of the *Paryāyamuktāvalī*.[465]

This work is based on Mādhava's *Ratnamālā*,[466] but the author rearranged its subject matter in a number of homogeneous sections, adding much that is new and omitting everything not connected with medicine.

The treatise contains 1,247 ardhaślokas, arranged in the following twenty-three vargas: sugandhi-, madhyagandha-, hīnagandha-, sāraja-, ratna-, dhātūpadhātu-, madhura-, amla-, uttamaśāka-, tiktaśāka-, puṣpa-, latāphala-, kanda-, mahāvṛkṣa-, madhyamavṛkṣa-, hrasvavṛkṣa-, latā-, śimbīśūkadhānya-, tṛṇadhānya-, bhaktādikṛtānna-, pānīya-, āvaśyaka-, and bhautikādivarga.[467] This arrangement, which is rather new and original, finds a parallel only in Hemacandra's *Nighaṇṭuśeṣa*, by which it may have been influenced, and in Gopīmohana's *Paryāyamuktāvalī*.

After enumerating the items of a particular varga, the author gives synonyms of each of them, to which the vernacular equivalent is usually added.[468] The homonymous section of the *Paryāyamuktāvalī* is much less developed than its synonymous

counterpart and covers only ardhaślokas 206–279 of the bhautikādivarga.

Remarkable words are: kuliñja (2.32), ahiphena (6.49), kākendu (7.31), and jayapāla (15.15).

No particulars are known on the author.

Being based on Mādhava's *Ratnamālā*, the *Paryāyamuktāvalī* is later than A.D. 800–1000. Internal evidence establishes that it cannot be earlier than about the thirteenth century: jayapāla is mentioned for the first time in the *Mādhavadravyaguṇa*, ahiphena and kuliñjana are found in Soḍhala's *Gadanigraha*,[469] and kākendu occurs in the *Dhanvantarinighaṇṭu*.[470] A lower limit cannot be determined by reason of the absence of quotations from the *Paryāyamuktāvalī* by later authors.

HARIHARA: *Vaidyavallabha*.[471]
HARIHARA NANDA: *Āyurvedasārasaṃgraha*.[472]
HARI KAVI, pupil of Vajrasena: *Karpūraprakaraṇa*.[473]
HARIPĀLA: *Yogacintāmaṇi*.[474]
HARIPĀLADEVA: *Yoganibandha*.[475]

HARIRĀYAŚARMAN was the author of the *Haridhāritagrantha*.[476]

This treatise consists of about 190 verses[477] and is divided into six chapters, which contain recipes, mostly of an āyurvedic type; the section on fevers of chapter one presents a number of rasayogas. A clear order in the arrangement of the diseases is absent, with the exception of chapter one, which deals with fever, diarrhoea, and grahaṇī, and the last chapter, which is mainly concerned with gynaecology, venereal diseases, and aphrodisiacs.

Some noteworthy disorders mentioned are: rasaśeṣajvara (7), pittodreka (30), pittadāha (30), mukhakīla (facial warts; 33), and kakṣādaurgandhya (foul-smelling armpits; 43). The work ends with a description of the purification of jayapāla.[478]

Noticeable among the substances prescribed are akarkara (41), mājūphala (10), and mastakī (10). Sources are not referred to.

The author calls himself Hariśarman in the maṅgalācaraṇa; his name is Harirāyaśarman in the colophons.[479]

The contents of the work warrant the conclusion that it cannot be earlier than the thirteenth century, but it may have been compiled a number of centuries later.[480]

HARIŚARAṆASENA, son of Gadādhara Mahāsena Pātra: *Dravyaguṇākara* or *Satkaṇṭharatna*.[481]

HARIṢEṆAPAṆḌITA: *Jagatsundarīyogamālā*.[482]
HEMACANDRA, pupil of Devacandra: *Gadanigrahagrantha*.[483]
HEMAVIJAYA GAṆI: *Kastūrīprakaraṇa*.[484]

HERAMBASENA SAHAPATNĪ, son of Śubhasena, compiled the *Gūḍhabodhakasaṃgraha*, a work on the aetiology, symptomatology, and treatment of diseases. After a respectful salutation to Cakrapāṇi, Maheśvara, Mādhava and Nityanātha, the author states that his treatise is based on the *Rasaratnākara* (of Nityanātha), the *Cakra(datta)*,[485] and (the work of) Maheśvara, which implies that Herambasena cannot be earlier than Nityanātha.[486]

INDRADEVA: *Nāmasāgara*.[487]
ĪŚĀNACANDRA VIŚĀRADA: *Bhaiṣajyavijñāna*.[488]
ĪŚVARA: *Kalpārṇava*.[489]
JAGANNĀTHADATTA: *Cikitsāratna*.[490]
JAGANNĀTHAPRASĀDA ŚUKLA: *Anupānakalpataru*.[491]
JANĀRDANA:[492] (1) *Mūtraparīkṣā*;[493] (2) *Sadvaidyakaustubha*.[494]
JARARA: *Jvaraparājaya*.[495]
JAYADEVA: *Jvaraparājaya*.[496]
JAYADEVA: *Kvāthacikitsā*.[497]
JAYADEVASVĀMIN: *Vaidyāmṛta*.[498]
JAYAKṚṢṆADĀSA, son of Veṅkaṭadāsa: *Cikitsāratna*.[499]
JAYAPĀLADĪKṢITA: *Madhukośa*.[500]
JAYARĀMA: *Cikitsāratnasaṃgraha*, a compilation from works on therapy.[501]

JAYARĀMAGIRI or JAIRĀMAGIRI, pupil of Caitanyagiri: *Kalpadrumasārasaṃgraha*, a work in a mixture of Sanskrit and Hindī.[502]

JAYARĀMAMIŚRA or JAIRĀMAMIŚRA: *Ānandārṇava*.[503]
JĪVARĀJA: *Saṃnipātacikitsā*.[504]

JÑĀNAVAJRA: *Guhyāgnicakra*. This Tibetan demonological treatise of Tantric inspiration, translated from the Sanskrit and forming part of the Tanjur, mentions Revatī and other malevolent beings.[505]

KADAMBA: *Vaidyakadamba*.[506]
KADAMBEŚVARA: *Kautukacintāmaṇi*.[507]
KĀLĪCARAṆADATTA: *Cikitsāsārasaṃgraha*.[508]
KĀLĪPRASĀDA VAIDYA: *Sārasaṃgraha*.[509]
KALPARĀMA: *Bālatantra*.[510]
KĀMADEVA: *Vaidyakalpadruma*.[511]
KAMALĀKṢA KAVIRĀJA of the Roṣa family: *Cikitsātattvacandrikā*.[512]

KĀMEŚVARA, son of Narendra (or Narahara Gauḍadyumaṇi), brother of Viśveśa Vidyānidhi, of the Puruṣottama family and of Gauḍadeśa: *Āyurvedasiddhāntasaṃbodhinī*, a work in two chapters (vṛtti), the first of which treats of several matters, especially dietetics, and the second of diseases and their treatment.[513]

KANAKADATTAVAIDYA: *Tailārṇava*.[514]
KANAKAPURAPADMAPAṆḌITA: *Cikitsāsthāna*.[515]
KĀNHA, son of Vastupāla: *Cikitsāratnabhūṣaṇa*.[516]

KĀŚĪNĀTHA. Several works are ascribed to one or more authors of this name:[517] (1) *Bālabodhodaya* by Kāśīnātha Caturvedin;[518] (2) *Cikitsādhātusāra* by Kāśīnātha Dvivedin;[519] (3) *Cikitsākramakalpavallī* by Kāśīnātha Caturvedin;[520] (4) *Rasakalpalatā*;[521] (5) *Viṣoddhāra*.[522]

The *Cikitsākramakalpavallī* is one of the sources of the *Rasayogasāgara*;[523] it is quoted in Hariśaraṇānanda's *Kūpīpakvarasanirmāṇavijñāna*.

KĀŚĪRĀMA: *Vaidyasarvasva*.[524]
KAVĪNDRACANDRA: *Ratnāvalī*.[525]
KAVIŚEKHARA: *Prasūtikaraṇa* or *Strīcikitsā*.[526]
KAVISENA: *Gudaroga*.[527]
KEDĀRANĀTHA HAḌA: *Sadvaidyasadbhāvaviveka*.[528]
KENDRADEVA: *Nāmasāgara*.[529]

KEŚAVA was the author of the *Hariguṇa*, a short medical treatise in five chapters: (1) kāyacikitsā, pañcakarman, and śalya (184 verses); (2) śālākya (30 verses); (3) viṣa and strīroga (13 verses); (4) rasāyana (7 verses); (5) vājīkaraṇa (10 verses). The arrangement of the diseases disagrees with the *Mādhavanidāna*.[530]

Keśava was the son of Vatsa and Koḍambā; Vatsa's father was the physician Vidyādhara, the son of Bhrātar and the grandson of Nāganātha.

KEŚAVABHAṬṬA: *Laghunighaṇṭusāra*.[531]
KOṆḌĀVADHĀNI: *Bāhaṭaśāstra*.[532]
KṚṢṆA: *Cikitsātattva*.[533]
KṚṢṆA: *Dravyaguṇaratnākara*.[534]
KṚṢṆADĀSA: *Dīpikākerala*.[535]
KṚṢṆAMIŚRA: *Sukhānandavinoda*.[536]
KṚṢṆĀNANDA KAVIRĀJA: *Cikitsāsaṃgraha*.[537]
KṚṢṆANĀTHAKAVIRĀJA: *Cikitsāsaṃgraha*.[538]
KṚṢṆAPĀDA: *Pūtikātailanirmāṇavidhi*.[539]
KṢEMAJAYA: *Prabodhacandrodaya*.[540]
KṢEMAṄKARA MIŚRA: *Cikitsāsāra*, a work in seventy-eight chapters (adhyāya).[541]
KṢEMAŚAṂKARAMIŚRA: *Cikitsāsāra*.[542]
KṢEMAŚARMĀCĀRYA, son of Gautama: *Cikitsāsārasaṃgraha*, in about 900 verses.[543]
KULAKĪRTI: *Añjanadīpikā*.[544]
LABDHICANDRA: *Bṛhallālacandrikā*.[545]
LAKṢMAṆAKAVI: *Kāśyapatantra*.[546]
LAKṢMĪDHARA: *Nidāna*.[547]
LAKṢMĪDHARĀCĀRYA: *Karṇārṇava*.[548]
LAKṢMĪNĀRĀYAṆA: *Gudavadanavivaraparīkṣāpañcaka*.[549]
LAKṢMĪNĀRĀYAṆA: *Viṣopacāra*.[550]
LAKṢMĪNĀTHA: *Laṅghanapathyanirṇaya*.[551]
MĀDHAVA: *Prayogacintāmaṇi*.[552]
MĀDHAVA: *Tantrasāra*, a collection of aphorisms on the causes of maladies.[553]

BHIṢAJ MĀDHAVA was the author of the *Kūṭamudgara*.[554] This work[555] is a very short treatise in twenty-one verses, which are, due to their compactness, difficult to interpret. It is accompanied by an auto-commentary.[556]

The work deals with the six tastes and their relationships with the doṣas (1–4), the doṣas in connection with the parts of day and night (5) and the stages of the digestive process (6), the bodily seats of the doṣas (7), and their association with the two halves of the year (8). After rules about the drinking of water in general and that from rivers in particular (9), the characteristics of incurable diseases are enumerated (10), followed by those of the sixty-two types of saṃnipāta (11–14) and the five mahābhūtas (15); the next subjects consist of the treatment of vraṇas (16), and the properties of harītakī, along with rules about its use (17–18). The tract ends with two verses on its qualities and one about its author.

Most of the verses of the *Kūṭamudgara* seem to be original, though verse sixteen is a quotation from the *Suśrutasaṃhitā*.[557]

The work is quoted in the *Āyurvedasaṃgraha* of Devendranātha and Upendranātha Senagupta.

No particulars are known on the author.

The work was written before the middle of the eighteenth century, because one of the MSS dates from A.D. 1747/48.[558]

MĀDHAVA KAVIRĀJA of Nāritagrāma: *Mugdhabodha*,[559] a compilation from earlier works on the treatment of various disorders. It ends with a list of twenty-two authorities, among which the following may be mentioned: Bhāskara, Candranātha, Caraka, Gahananātha, Mahāsena, Maheśvara, *Nidāna*, *Pātañjala*, *Ratnāvalī*, *Sārakaumudī*, Suśruta, *Tantra*, Tantranātha, Vābhaṭa, *Vaidyasāgara*, and *Vṛddhavāgbhaṭa*.[560]

The *Mugdhabodha* is probably later than Vaidyarāja's *Sukhabodha*,[561] because it partly agrees with the latter.[562]

MĀDHAVA PAṆḌITA: *Gadāsaṃjīvanī*.[563] The introductory stanzas of one of the MSS[564] enumerate the following subjects: (1) roganidāna, (2) ...,[565] (3) auṣadhakalpa, (4) mūlikākalpa, (5) raktamokṣaṇa, (6) agnirakṣākarman, (7) śastrakarman, and (8) mantra. Topics dealt with in another MS[566] are: sarvaroganidāna, nāḍīnidāna, doṣatraya, aśītivātanidāna, paittyaroganidāna, śleṣmaroganidāna, jvaranidāna, kṣayaroganidāna, grahiṇīnidāna, mehanidāna, and viṣūcyajīrṇanidāna.

The *Gadāsaṃjīvanī* is quoted in a work called *Nāḍīvijñāna*.[567]

The author, of Śrīvatsagotra and Āpastambasūtra,[568] was a son of the poet and physician Tuḷḷūru Śarabharāju. He completed his father's medical treatise, the *Śarabharājīyamu*. Mādhava Paṇḍita, who was called vaidyavidyātrinetra, may have lived in the seventeenth century.[569]

MĀDHAVĀCĀRYA: *Cikitsāratnasaṃgraha* or *Cikitsākalpapādapa*.[570]
MĀDHAVĀCĀRYA SALĀDU: *Cikitsāsārasaṃgraha*, also called *Tribhuvanatilaka*.[571]
MADHU: *Dravyaguṇaratnamālikā*.[572]

MĀGACANDRADEVA: *Māgarājapaddhati*, a work covering all the fields of medicine, including charms.

In a long introduction the author gives a detailed genealogy. He is a kṣatriya of Kauśalyagotra[573] and a descendant of Rāma. His forefathers are Sahagala, Sāhana, Dharma, Maṅgaṭa, Abhaṭa, Saṃbhava, Manorā, Kajjala, Vaccharāja, Mahārāja, Gāgū, and Nāthūdeva. The three sons of Nāthudeva were Tripuradāsa, Rūpacandra, and Māgadeva (= Māgacandradeva). Tripuradāsa had two sons, Kundā and Nicandā. Rūpacandra's three sons were Kālidāsa, Haridāsa, and Jevidāsa. Māgadeva's two sons were called Durgādāsa and Bhojarāja.

Sources mentioned in the introduction are Caraka, Hārīta, Suśruta, Tīsaṭa, Vāgbhaṭa, and Vaṅga(sena).[574]

The family to which Māgacandra belonged ruled at Sādhāraṇapura, a city identified as Sahāranpur in Uttar Pradesh by D.C. Sircar. This author claims that Sahagala or Sahigila is no other than the Panjabi family name Saigal. He connects this name with Hindī saikalgar (a polisher of metal arms and tools), which is the name of a minor caste found in the Sahāranpur region.[575]

The town of Sahāranpur was founded about A.D. 1340, in the reign of Muḥammad bin Tughluq (A.D. 1325–1351). Māgacandra does not appear to have flourished earlier than the fifteenth or sixteenth century.[576]

MAHĀDEVA: *Mahārasāyanavidhi*, taken from the *Kākacaṇḍeśvarīmata* or some other Tantra.[577]

MAHĀDEVABHIṢAJ: *Vaidyavinodasāra*.[578]
MAHĀDEVAPAṆḌITA, client of Rājasiṃha: *Rājasiṃhasudhāsindhu*.[579]
MAHENDRA: *Dravyāvalīnighaṇṭu*.[580]
MAHENDRA: *Vaidyakasaṃgraha*.[581]
MAHENDRA JAINA, son of Kṛṣṇa Vaidya: *Dravyāvalīsamuccaya*.[582]
MAHEŚA BHAṬṬA: *Cikitsāsāra*.[583]
MAHEŚACANDRA: (1) *Vaidyakasaṃgraha*;[584] (2) *Vaidyakasarvasva*.[585]

MAHO: *Cakṣuṣpratyarpaṇadṛṣṭikriyā* or *Ācārasmārakanyāsa*,[586] attributed to the Indian physician Maho[587] or Manaha.[588] The Tibetan titles of this short work on the treatment of eye diseases, translated in the Potala by Lhun-grub,[589] are *Mig-ḥbyed mthoṅ-ba don-ldan*[590] and *Lag-len zin-bris-su bkod*.[591]

MALLADEVA: *Kālajñāna*.[592]

MALLĀRIPAṆḌITA, son of Keśavācārya: *Vaidyakalpataru*.[593] This is a rasaśāstra work in twenty-one chapters; the *Rasārṇava* is quoted in it.[594] The same author may have written the *Aśvāyurvedasārasindhu*.[595]

MALLIṢEṆA: *Bālagrahacikitsā*.[596]
MĀNAJĪ, pupil of Sumatimeru: *Āyurvedasārasaṃgraha*.[597]

MAṄGALAGIRI SŪRI, of Gelavaṅgala family and Ātreya gotra, son of Jagannātha, was the author of a work called *Sūtrasthāna*.[598]

Its nine chapters have the following headings: (1) āyurvedasūtrasthāna, (2) rasasūtrābhidhāna, (3) saṃkhyāsaṃkhyeyasūtra, (4) ārogyasūtra, (5) tridoṣasūtra, (6) dhamanīsūtra, (7) viṣaprativiṣasūtra, (8) yantrasūtra, and (9) āsuracikitsāsūtra.

Maṅgalagiri also wrote a commentary on Bharadvāja's *Bheṣajakalpa*. A *Rasasūtrābhidhāna*[599] is sometimes regarded as a commentary on (a portion of) the first chapter of Bharadvāja's *Rasapradīpikā*.

Maṅgalagiri is described as an erudite scholar, well versed in medicine, rasaśāstra, mantraśāstra, etc.[600]

MAṄGARĀJA: *Khagendramaṇidarpaṇa*.[601] This treatise, arranged in sixteen chapters, written in Kannaḍa, deals with the treatment of various diseases, but is chiefly concerned with snake-bites and poisons in general. Four types of medicinal preparation are prominently present in the work: nasya (an errhine), pāna (a fluid for internal use), lepa (a paste for external application), and añjana (a collyrium). Mantras are repeatedly mentioned.

Authorities referred to are Jina and Pūjyapāda.

The author, also called Maṅga(ṇa) and Maṅkhaṇa, lived in the Hoysala country and wrote his treatise during the reign of Harihara I of Vijayanagar[602] (about A.D. 1336 to 1356),[603] or somewhat later.[604] His mastery in Kannaḍa and Sanskrit earned him the titles of ubhayakavīśa, kavipadmabhāskara, and sāhityavaidyavidyāmbudhi.

MAṆI: *Yogāñjana*.[605]

MĀṆIKYA, son of Padmanābha: *(Saṃnipāta)padacandrikā*, a commentary on the anonymous *Saṃnipātacandrikā*, a monograph on fevers.[606]

MANĪṢIN, son of Haradatta: *Dviśatī*.[607]
MAṆIVEṆA: *Bālagrahacikitsā*.[608]
MANU, son of Lakṣmaṇa: *Vaidyasarvasva*, a collection of 117 prescriptions.[609]
MĀRGASAHĀYA: *Bhaiṣajyasāranighaṇṭu*.[610]

MATHANASIṂHA VAIDYA or VAIDYAMATHANASIṂHA: *Trayodaśasaṃnipātānāṃ cikitsā*, a work in fifty-four verses, dealing with the diagnosis and treatment of thirteen saṃnipāta fevers. The names of twelve of these fevers are: sandhiga, antaka, rugdāhaka, cittabhrama, śītāṅga, tandrika, kaṇṭhakubja, hāridraka, bhagnanetra,[611] raktaṣṭhīvin, jihvaka, and abhinyāsa. Two additional chapters on saṃnipāta fevers and their treatment occur at the end of the tract: guṭikādhikāra and saṃnipātakalikā.[612]

This text is related to the *Saṃnipātakalikā* attributed to Dhanvantari and that which forms part of the *Aśvinīkumārasaṃhitā*.[613]

MATHURĀNĀTHA ŚUKLA: *Vaidyāmṛtalaharī*.[614]
MĀYAṆA: *Bheṣajakalpa*.[615]

MUDGALA: *Dravyaratnākara.*[616]
MUḌUMBAI RĀGHAVĀCĀRYA, of Śrīvatsagotra: *Cikitsāsārasaṃgraha.*[617]
NĀGADEVA: *Paryāyamañjarī.*[618]
NAMAḤŚIVĀYA PAṆḌITA, pupil of Pūrṇānanda: *Vaidyapūrvakhaṇḍa.*[619]

NANDIKEŚVARA: *Netraprakāśikā*, a work on eye diseases, in the form of a dialogue between Pūjyapāda as the teacher and Hayagrīva as the pupil.[620] The colophon gives the impression that it formed part of a larger work, called *Āyurveda*, composed as a conversation between Umā and Maheśvara.[621]

NAÑJARĀJA BHŪPĀLA: *Vaidyasārasaṃgraha.*[622] This work may be the same as the *Vaidyasārasaṃgraha* of Narasiṃhaśāstrin.[623]

NĀRADA: *Sphoṭikāvaidya*, a treatise in three chapters, in the form of a dialogue between Āstīka and Gautama, on the treatment of sphoṭikās.[624]

NARASIṂHA: *Guṇasārasamuccaya.*[625]
NARAVATA(?): *Kāṅkāyanavaṭikā.*[626]
NĀRĀYAṆA: *Jyotsnikā.*[627]
NĀRĀYAṆA: *Nārāyaṇāvalokana*, a medical work on karmavipāka.[628]
NĀRĀYAṆA: *Nārāyaṇavaṭīpāṭha.*[629]
NĀRĀYAṆA: *Ratnamālādhyāya*, a medical vocabulary.[630]

The *Tantrasārasaṃgraha*[631] by NĀRĀYAṆA[632] is a Tantric text, also called *Nārāyaṇīya Sarvamantrārthakośa*,[633] that deals with medicine in some of its chapters.[634] In Kerala it is known as *Viṣanārāyaṇīya*,[635] in order to distinguish it from Nārāyaṇabhaṭṭatripāda's *Nārāyaṇīya*, which is a well-known Bhāgavata work, very popular in that country.[636]

The treatise contains 2,069 verses, arranged in thirty-two chapters (paṭala).[637] It is called a ṣaṭkārmikatatantra,[638] which explains that six Tantric subjects are covered:[639] viṣa, i.e., toxicology (chapters one to ten), grahas and unmāda (chapters eleven to fourteen), āmayadhvaṃsa and auṣadha, i.e., the treatment of various diseases (chapters fifteen and sixteen), the types of magic called kṣudra[640] (chapters seventeen and eighteen),[641] the conjuring art called narman or vinoda, i.e., illusionism (chapter nineteen), and, finally, kāmika, i.e., devotion to Tantric deities and its results (chapters twenty to thirty-two).[642]

The first ten chapters are mainly on animal poisons: (1) introductory matter, (2) the origin of snakes and their typology, (3–5) the treatment of snake-bites with mantras, etc., (6) the medical treatment of the bites of darvīkara snakes, (7) the bites of gonasa snakes [643] and their treatment, (8) the bites of rājila snakes and their treatment, (9) rat-bites and their treatment, (10) the bites of spiders, scorpions, rabid dogs, etc., together with their treatment, remedial measures against poisons of animal and vegetable origin, and drugs which neutralize other drugs (pratyauṣadha).[644]

Chapters eleven to sixteen deal with: (11) bālagrahas (three series are mentioned,

attacking the child on the first to tenth day, first to twelfth month, and second to seventeenth year of life),[645] (12) unmāda, i.e., insanity, caused by bodily disorders or by grahas, (13) measures against disorders caused by grahas, (14) the treatment of unmāda, (15–16) the treatment of various diseases.

Chapters seventeen to twenty-seven are not relevant to medicine. Chapter twenty-eight (vaśyapaṭala) contains various measures which affect the sexual functions of men and women; chapter twenty-nine (strīpaṭala) contains matter pertaining to obstetrics and gynaecology; chapter thirty (gavādipaṭala) is about diseases in various domestic animals and other subjects; chapter thirty-one (yuddhādipaṭala) is concerned with ariṣṭas and warfare. The concluding chapter (hariharapūjādipaṭala) is devoid of medical interest.

The author refers to only one of his sources, namely the *Śikhāyoga*.[646]

The *Tantrasārasaṃgraha* is quoted by Anantakumāra[647] and Īśānaśivagurudeva under the title *Nārāyaṇīya*.[648] The *Bhesajjamañjūsāsannaya* cites it as *Tantrasārasaṃgraha* and *Nārāyaṇīya*.

Eighteen mahāgrahas are described, together with the symptoms they bring about in their victims: amṛta or sura, asura, nāga, yakṣa, gandharva, rākṣasa, meḍhra, kaśmala,[649] nistejas,[650] bhasmaka, pitar, kuśa, vināyaka, pralāpa, piśāca, antyaja, yonija, and bhūta; to these are added nine grahas: apasmāra, dvija, brahmarākṣasa, avanibhuj or nṛpa, viś, vṛṣala, nīca, caṇḍāla, and vyantara. The grahas are also divided into the categories balikāma, ratikāma and hantukāma.[651]

A disease of the ears, called jhiṇikā, is once mentioned (15.58), and also a type of arśas localized on the scalp (kapālārśas, 16.22). The disease called mārī (15.51) is probably the same as masūrikā (15.52). The commentator explains ślīpada as pādavalmīka (ad 16.46).

Interesting names of medicinal plants are: ajjhaṭā (8.41; 15.41),[652] alpamāriṣa (6.54), aśvinīvṛkṣa (17.73), avitāna (8.40; 10.24),[653] bāhuvallī (6.15; 7.68),[654] dorvallī (7.60 and 64; 8.41),[655] doṣā (7.42 and 66; 9.72; 10.5 and 41),[656] gāyakī (7.66),[657] ijhaṭā (31.68), jārī (31.66), kapotī (7.56), kāraskara (10.45),[658] lakṣmī (9.62; 29.23),[659] mohinī (10.12; 20.32),[660] mūrdhapuṣpī (7.66),[661] nandyāvarta (7.60; 21.9; 31.71),[662] papphaṇa (29.39), phaṇītaka (30.4), phirā (9.51 and 52), rājamohinī (31.64), sadābhadrā (19.40), sāgarairaṇḍa (9.60),[663] samīrasakha (6.59),[664] saṃmohinī (31.73), śauṇḍī (8.38),[665] sitehā (10.15), śophaghnī (6.54 and 58),[666] sphoṭikā (7.59), śūlī (8.32), śyenā (17.75),[667] taṭāka (9.51),[668] tāpiccha (9.36; 16.6),[669] triśūlī (31.63), tuṇḍī (8.40; 9.43, 55 and 58; 16.22),[670] uttamā karṇikā (9.48),[671] uttānaparṇī (31.68), vanakuṣṭha (7.61), vanāmbā (7.61), vega (6.13),[672] vijayarāga (6.17), viṣataru (17.70 and 74),[673] vyāghāta (9.33; 16.19), vyāghātaka (8.41),[674] yāmavatī (7.67),[675] and yāminī (7.59 and 61; 10.39).[676]

Nārāyaṇa informs us[677] that he was a son of Nārāyaṇa and Umā, and a brother of Gaurī; his maternal uncle was called Parameśvara. His family lived in Śivapura on the banks of the river Nilā. He is reported to have acquired his knowledge of mantraśāstra through efforts to get rid of a disease which was either kuṣṭha or pakṣavadha. In Kerala he is regarded as the author of the *Lakṣaṇāmṛta*[678] and other works on agadatantra.

The Nārāyaṇa who wrote the Bhāgavata work called *Nārāyaṇīya* should be distin-

guished from the author of the *Tantrasārasaṃgraha*. The former, a devotee of Kṛṣṇa, who lived in the village Navagrāma on the banks of the Nilā in the period 1550–1650, was called Nārāyaṇabhaṭṭatripāda.[679]

The *Tantrasārasaṃgraha* may be earlier than the *Īśānaśivagurudevapaddhati* (twelfth century),[680] which borrows from and refers to it as *Nārāyaṇīya*,[681] The work precedes the *Bheṣajjamañjūsāsannaya* (completed in A.D. 1734), and Anantakumāra's *Yogaratnasamuccaya*, which quote it.

Some scholars regard it as belonging to the sixteenth century.[682]

The commentary on the *Tantrasārasaṃgraha* was written by an unknown author, but it is sometimes, on insufficient grounds, ascribed to Nārāyaṇa himself.[683] It was evidently composed in Southern India, since it gives the Tamil and Malayāḷam equivalents of many terms, especially of the names of plants and animals. In this respect it abounds in repetitions. Apart from that, it contains much interesting Tantric material. Quotations are nowhere referred to their sources.

NĀRĀYAṆAPAṆḌITA: *Vaidyaratnākara*.[684]

NĀRĀYAṆARĀJA: *Nārāyaṇavilāsa*.[685] This work is one of the sources of the *Rasayogasāgara*.[686]

NĀTHAPAṆḌITA: *Aṣṭāṅgakāṇḍa*.[687]
NEMICANDRA: *Dravyasaṃgraha*.[688]

NĪLAKAṆṬHA was the author of the *Basavarājīya*[689] or *Vṛṣarājīya*,[690] an extensive medical treatise, divided into twenty-five chapters (prakaraṇa).

Chapter one: generalities, the examination of the pulse, fevers, krimiroga, jvarātisāra, atisāra; chapter two: saṃnipāta fevers; chapter three: the doṣas, the examination of the urine; chapter four: kṣaya and rājayakṣman; chapter five: pāṇḍuroga, halīmaka, śopha, kāmalā; chapter six: vātavyādhi; chapter seven: twenty-four pitta diseases and chardi; chapter eight: kāsa, śvāsa, hikkā; chapter nine: meha, mehavraṇa, mūtrakṛcchra, mūtrāghāta, aśmarī.

Chapter ten: grahaṇī, atisāra; chapter eleven: udara, ānāha and udāvarta, vidradhi; chapter twelve: tṛṣṇā, dāha, hṛdroga, viṣūcī, alasaka, vilambikā, agnimāndya, ajīrṇa; chapter thirteen: kuṣṭha, visarpa, visphoṭaka; chapter fourteen: arśas, upadaṃśa, śūkadoṣa, aṇḍavṛddhi; chapter fifteen: vandhyātva, ārtavadoṣa, garbhapāta, garbhaśūla, gudabhraṃśa, garbhiṇīroga, etc.; chapter sixteen: asṛgdara, kusumaroga, asthisrāva, yonivyāpad, yonikanda, garbhapāta, mūḍhagarbha, sūtikāroga, stanaroga, somaroga, etc.; chapter seventeen: netraroga; chapter eighteen: medoroga, kārśya, madātyaya, nāsāroga, śiroroga; chapter nineteen: gulma, tūnī, pratitūnī, aṣṭhīlā, pratyaṣṭhīlā, śūla; chapter twenty: unmāda, apasmāra.

Chapter twenty-one: bhagandara, vraṇa, āgantukavraṇa, nāḍīvraṇa, agnidagdhavraṇa, lūtavraṇa, markaṭīroga, arbuda, galagaṇḍa, gaṇḍamālā, karṇaroga, mukharoga, tuṇḍivraṇa, kūpavraṇa, snāyukavraṇa, stanavraṇa, granthi, galakīla, āsyasphoṭa, kīlaka, kālasphoṭa, ślīpada; chapter twenty-two: kṣudraroga, svarabhaṅga, vadana-

durgandha, kandubhedana, chāyāroga, arocaka; chapter twenty-three: viṣa; chapter twenty-four: karmavipāka; chapter twenty-five: alchemy.

The treatise ends with a list of diseases.

The *Basavarājīya* describes the aetiology, symptomatology and therapy of the diseases mentioned. The arrangement of the diseases is not in conformity with the *Mādhavanidāna*, nor with Vāgbhaṭa's order. The prescriptions are of both āyurvedic and iatrochemical types.[691]

Some parts of the treatise are not in Sanskrit, but in Telugu.

Sources referred to or quoted are: *Agnimata* (1, 27,[692] 90, 387), Agniveśa (27), *Āśvina* (159), *Aśvinīkalpa* (58, 78, 83, 88, 90, 122, 126, 243, 250, 282, etc.), *Aśvinīnighaṇṭu* (22, 146),[693] *Aśvinīya* (1, 11), *Āyurveda* (1, 8, 10, 11, 13, 15, 19, 21, 22, 24, etc.) *Bhairavakalpa* (1, 60, 89, 198, 205),[694] *Bheṣajakalpa* (1, 13, 20, 32, 73, 227, 257, 270, 295, 362), *Brahmagāruḍa* (1, 362, 364),[695] *Candrabhāṣya* (268),[696] *Candrakalpa* (1),[697] Caraka (1, 2, 18, 22, 30, 73, 74, 108, 118, 119, etc.),[698] *Cikitsāsārasaṃgraha* (1, 90, 172), *Cikitsāsārasiddhasaṃgraha* (13, 129, 159, 177, 179, 189, 192, 195, 207, 226, etc.),[699] *Cintāmaṇi* (1, 10, 27, 49, 50, 51, 52, 53, 54, 76, etc.), *Devīśāstra* (1, 77, 385, 400),[700] Hārīta (27), *Hārītātreyakasaṃhitā* (11),[701] Hemādri (370), Jātukakarṇaka (1), Jātukarṇa (190), *Jātukarṇanighaṇṭu* (85),[702] *jyotiḥśāstra* (366, 369, 370, 371, 372, 373, 374, 375), *jyotiṣa* (1, 58), *Karmakāṇḍa* (371),[703] *Karmavipāka* (1, 72), *Karmavipākasaṃgraha* (368), *Kāśīkhaṇḍa* (1, 307), *Kaumudī* (109), *Lohatantra* (84), *Mādhavakalpa* (1, 59, 60, 70, 100, 123, 163, 171, 194, 201, etc.),[704] *Mādhavanidāna* (very often),[705] *Mādhavīya* (1, 194[706]), *Nandināthīya* (1, 165),[707] *Nighaṇṭu* (387, 393, 396, 398, 401, 402, 403, 412, 415), *Nityanāthīya* (1, 23, 26, 27, 29, 30, 34, 35, 49, etc.), Pārāśarya (368), *Pārijāta* (109), *Pūjyapādīya* (1, 8, 21, 33, 41, 42, 60, 78, 81, 111, etc.), *Rasaratnākara* (27, 31, 32, 33, 34, 35, 81, 130, 143, 148, etc.), *Rasārṇava* (2), *Revaṇakalpaka* (1), *Revaṇasiddhabhāṣya* (64),[708] *Śārīra* (70, 130, 132, 182, 185, 216, 222, 236, 237, 269, etc.), *Śārīranighaṇṭu* (82,[709] 115[710]),[711] *Śārīrasūtra(sthāna)* (1, 115), *Siddharasārṇava* (1, 8, 11, 18, 26, 28, 29, 31, 32, 38, etc.),[712] *Siddhasaṃgraha* (73, 88, 131, 181, 196, 243),[713] *Siddhasārasaṃgraha* (178),[714] *Siddhavidyābhū* (1, 2, 8, 12, 16, 21, 33, 57, 58, 69, etc.),[715] *Sindūradarpaṇa* (1, 97),[716] *Sindūramaṇidarpaṇa* (31, 110, 127, 129, 133, 164, 180, 195, 222, 244, etc.),[717] *Sūrasūtra* (270),[718] *Sūtrasthāna* (83, 230), and Vāgbhaṭa or Vāhaṭa (1, 8, 10, 14, 15, 16, 17, 18, 19, 20, etc.).[719]

To this list have to be added: *Cintāmaṇinighaṇṭu*,[720] *Pūjyapādanighaṇṭu*, and *Sūtrarājaratnākara*,[721] as well as *Rakṣākarmasūtra*,[722] *Rasahṛdayatantra*, *Rasendrasaṃhitā*, and Suśruta.[723]

The *Basavarājīya* is referred to in Gulrājśarmamiśra's *Siddhaprayogalatikā*;[724] it is quoted in the *Āyurvedīya Khanijavijñāna*, *Bheṣajasaṃhitā*, Hariśaraṇānanda's *Kūpīpakvarasanirmāṇavijñāna*, and Satyadeva Vāsiṣṭha's commentary on Rāvaṇa's *Nāḍīparīkṣā*. Basavarāja's *Basavarājīya* is one of the sources of the *Rasayogasāgara*.

Caraka is said to belong to the Kṛtayuga, the *Rasārṇava* to the Tretā-, the *Siddhavidyābhū* to the Dvāpara-, and the *Basavaka* to the Kaliyuga. The order of the diseases disagrees with the *Mādhavanidāna*, except in the chapter on karmavipāka (ch. 24). Dis-

eases described by Mādhava, but omitted by Basava in the main body of his work, are vātarakta, bhagna, masūrikā, and bālaroga. The chapter on fevers (ch. 1), however, includes a masūrījvara; vātarakta is mentioned in the list of disorders at the end of the *Basavarājīya*. Completely absent are vardhma, phiraṅgaroga, and śītalā, but snāyuka and somaroga were known to Basava. The names of fever in various living beings and inanimate substances are enumerated (7). Unusual types of fever described are masūrījvara (11–12), śaktijvara (11), kālajvara (22), viṣūcikājvara (24), kāmalājvara (25), and sūtikājvara (26). Ten stages (avasthā) of fever are mentioned (26).

Two series of thirteen saṃnipāta fevers are described. The first series consists of sandhika, tāndrika, pralāpa, cittavibhrama, jihvaka, karṇika,[725] rugdāha, antaka, bhugnanetra, kaṇṭhakubja, raktaṣṭhīvin, śītagātra, and abhinyāsa (50–54).[726] Each member of this first series is characterized four times, according to the descriptions of the *Mādhavanidāna*,[727] *Āyurveda*, *Nityanāthīya*, and *Cintāmaṇi*. The characterizations said to be from a treatise called *Āyurveda* are also found in the *Parahitasaṃhitā* and *Yogaratnākara*; the remaining ones are unknown from other texts.

The second series consists of visphāraka, āśukārin,[728] kampana, babhru, śīghrakārin, bhalla, kūṭapālaka, saṃmohaka, pālaka, yāmya, krakaca, karkaṭaka, and vaidārika (54–57). The descriptions of these fevers are identical with those by Vaṅgasena and Bhāvamiśra.

Chapter two describes four abnormal colours of the tongue (59–60). Chapter six states at its beginning (92) that eighty disorders by vāta will be enumerated, but the list following this statement has only a number of seventy-one. This highly unusual list, which completely disagrees with the eighty vātavikāras of the *Carakasaṃhitā* and the vāta disorders of many medical treatises, mentions ūrdhvavāta,[729] śirovāta, pakṣāghāta, pārśvavāta, ardhāṅgavāta,[730] kampavāta,[731] ūrustambha,[732] kikkasa,[733] raktavāta,[734] amlavāta, kaphavāta, sādhyavāta, dhanurvāta,[735] timiravāta, kaṇṭhavāta, kākavāta, śītavāta, nayanavāta, udaravāta, nāsāvāta, mukhavāta, avayavāṅgavāta, jihvāṅgavāta,[736] naravāta, karṇavāta, āmavāta,[737] tvagvāta,[738] aṇuvāta, aṅgavāta, bhramaṇavāta, malabaddha, gulmavāta, mūtrabaddha, bāhukampa, skandhavāta, mandavāta, jānuvāta, jaṅghāvāta, pādavāta, kandharavāta, aṅgulīvāta, anulomavāta, vilomavāta, suptavāta,[739] koṣṭhavāta, bastivāta, śuṣkavāta, sthānavāta, kukṣivāta, asthivāta,[740] majjāvāta,[741] ekāṅgavāta, kṣīṇavāta,[742] vasāvāta,[743] madhuvāta, kṣudhāvāta, śṛṅkhalavāta, sphoṭavātaka, snāyuvāta,[744] prasūtivāta, ajīrṇavāta, ātapavāta, agnivāta, svarahīna, khañjaka, kalāvāta, daṇḍavāta,[745] kṣatavāta, paṅguvāta,[746] dadhivāta, and unmādavāta.

The vāta diseases characterized in chapter six are for the greater part, but in a different order, those enumerated in this list,[747] but some of the latter are absent: naravāta, aṅgavāta, sthānavāta,[748] and kṣudhāvāta. Vāta diseases described in chapter six, although absent from the list, are: dhūmavāta (93), vidhūmavāta (94), kṣutavāta (96), gṛdhrasīvāta (97),[749] pāṃśuvāta (98), śuklavāta (98), bhogavāta (99), kaṭivāta (99),[750] sirāvāta (101),[751] āḍhyavāta (106),[752] sandhivāta (106),[753] styānavāta (108), gulphavāta (108), ardita (111),[754] badhiravāta (113), and orugavāta (114).[755] At the end of chapter six, Basava gives a list and descriptions of vāta diseases according to another treatise. This second list includes a considerable part of the usually recognized

vāta disorders.[756]

A list of twenty-four pitta diseases, completely different from the forty pitta disorders of the *Carakasaṃhitā*, is found at the beginning of chapter seven. The list consists of avarṇa, vivarṇa, sūryavarṇa, kāmalā, āmla, rakta, sveda, unmatta, pauṇḍra, sarpika, karapāda, śīta, mūrchā, madhuka, kusumaka, krodha, bhraṃśa, śiras, kṣudh, tṛṣṇā, durbhāva, carman, durgandha, and madana. The descriptions of the pitta diseases are largely in the same order: āvarṇapaittya, vivarṇapaittya, sūryavarṇa, kāmalā, amlapitta, svedapitta, unmādapaittya, puṇḍarīka, karapāda, śītapitta, mūrchāpitta, madhupitta, kusumapitta (and nāsikākusuma = nosebleed), krodhapitta, bhraṃśapitta, śiraḥpitta, kṣudhāpitta, tṛṣṇāpitta, durbhāvapitta, carmapitta, madanapitta, visarpapitta,[757] and raktapitta (as well as asṛgdara). The remaining part of the chapter is devoted to renewed descriptions of amlapitta and mūrchā.

Chapter eight, on cough (kāsa), describes at first five types of kāsa, in agreement with the *Mādhavanidāna*, followed by another list consisting of twenty varieties, which are subsequently characterized: pūrvakāsa, kṣayakāsa, raktakāsa, cippikākāsa, vātakāsa, pittakāsa, kṣatakāsa, śuktikākāsa, āmakāsa, pāṇḍukāsa, kṛṣṇakāsa, śleṣmakāsa, dadhikāsa, śleṣmajihvakakāsa, kaṇṭhajihvakakāsa, upajihvakakāsa, jihvakakāsa, ūrdhvakāsa, śleṣmabhaṅga or bhaṅgāliśleṣmaka, and kuṣṭhakāsa or śleṣmakuṣṭha.

Chapter twelve enumerates the symptoms of three doṣaja types of viṣūcī and five complications of this disease (201). Chapter thirteen mentions kuṣṭha, jvara, śoṣa and netrābhiṣyanda as contagious diseases (aupasargikaroga; 211). Chapter fifteen refers to parasitic organisms in the uterus (241). Chapter sixteen describes the disease called asthisrāva (248). Chapter seventeen refers to a number of ninety-four eye diseases (259).[758] Chapter twenty-one describes burns (agnidagdhavraṇa; 321), lūtavraṇa (322), and several varieties of a disease called markaṭīroga (323–325);[759] the number of mukharogas is said to be sixty-four (334);[760] some unusual mukharogas described are galagranthi (347), galakīla (347), and āsyasphoṭa (347–348); two other rarely mentioned disorders are kīlaka (348) and kālasphoṭa (348). Chapter twenty-one deals, among other things, with diseases called kandubhedana (361) and chāyāroga (361).[761]

The author's name is Nīlakaṇṭhakōṭṭūru Basavarāja, son of Namaḥśivāya, who was a disciple of Rāmadeśika of the Niḍimāmiḍi family.[762] He calls himself the moon of the Nīlakaṇṭha family[763] and belonged to the Vīraśaiva sect.[764] The name of his guru may have been Jaṅgameśa.[765] The *Basavarājīya* is especially popular among the vaidyas of Āndhra Pradeś.[766]

It is difficult to establish an exact date of the *Basavarājīya*. The developed state of nāḍīparīkṣā and rasaśāstra, and the quotation from Hemādri, indicate that it cannot be earlier than the fourteenth century. The prescription of rasakarpūra,[767] although not yet against phiraṅgaroga, points to the sixteenth century as the period of its composition. This is confirmed by the presence of China root[768] in the prescriptions against venereal diseases.[769]

NĪLAKAṆṬHA: *Nīlakaṇṭhasaṃgraha*, a work on pathology and therapy, containing numerous prescriptions with special names. This treatise is sometimes characterized as a physician's vademecum. Caraka is quoted with preference, and Mādhava is followed

in the arrangement of the diseases. General subjects and religious therapy are also dealt with.

Nīlakaṇṭha was a son of Narahari and Sāvitrī and belonged to the Vaidya caste. His uncle was Śrīdhara of Dhanvantarigotra; one of his more remote ancestors was Tripurāridhana, a mahopādhyāya.[770]

NĪLAKAṆṬHAMIŚRA: *Paryāyārṇava*, a medical lexicon in five chapters (taraṅga).[771]

NITYANĀTHA, Śrīnātha or Nāgabhaṭṭa was the author of the *Kāmaratna*,[772] a popular Tantric treatise[773] on ṣaṭkarman and other types of magic.

The work[774] consists of about 1,400 verses,[775] arranged in sixteen chapters.[776] Some of the subjects are: vaśīkaraṇa (subjugation; 1.38–107),[777] ākarṣaṇa (attraction; 2.1–16),[778] jaya (victory over adversaries; 3.1–19), stambhana (immobilization; 4.1–82),[779] mohana (delusion; 5.1–17), rañjana (pleasing; 5.18–94), vājīkaraṇa (aphrodisiacs; 6.1–91),[780] uccāṭana (eradication; 10.1–15), vidveṣaṇa (sowing dissension; 10.16–22),[781] māraṇa (killing; 10.42–59), kautuka (awesome feats; 11.1–36),[782] kāmyasiddhi (procuring desired ends; 12.1–113), yakṣiṇīsādhana (propitiation of yakṣiṇīs; 15.1–51).[783]

Subjects more or less related to medicine are: delaying or preventing ejaculation (śukrastambhana; 4.44–82),[784] the prevention of a foul smell and sweating (5.19–31), the treatment of disorders of the skin, especially those affecting the face (piṭakā, nīlī, vyaṅga, tilakāla, śyāmikā; 5.42–56),[785] recipes against lice and nits (5.98–105)[786] and against premature baldness (indralupta; 5.106–117), aphrodisiacs (vājīkaraṇa; 6.1–91), tightening the vagina (gāḍhīkaraṇa; 7.1–10),[787] increasing the size of the male organ[788] and promoting erection (kāmadhvajasthūlīkaraṇa; 7.33–54), increasing the size and firmness of the female breasts (stanavardhana; 7.55–71),[789] removal of the pubic hair in women (lomaśātana; 7.74–86),[790] bringing about impotence (saṇḍhīkaraṇa; 8.1–9),[791] curing impotence caused by ill-disposed women (duṣṭastrīkṛtadhvajapātotthāpana; 8.10–13), making the female organs inaccessible to another male (yonibandhana; 8.14–24),[792] bringing about menstruation (puṣpakaraṇa; 8.26–31),[793] bringing about miscarriage (garbhapātana; 8.33–40),[794] stopping menorrhagia and metrorrhagia (pradara; 8.41–58), the treatment of sterility in women (janmavandhyācikitsā; 8.60–93),[795] the treatment of sterility subsequent to the birth of the first child (kākavandhyācikitsā; 8.94–98),[796] the treatment of women whose children die at an early age (mṛtavatsācikitsā; 8.99–112),[797] measures protecting the unborn child (garbharakṣā; 8.120–140),[798] the treatment of disorders in pregnant women (sāmānyacikitsā; 8.141–158),[799] measures securing an easy delivery (sukhaprasava; 8.160–164),[800] measures against bālagrahas (8.165–180),[801] the therapy of the children's disease called ahituṇḍikā (8.181–183),[802] bringing about sleep (nidrākaraṇa; 9.20–24) or sleeplessness (nidrānāśana; 9.25–28),[803] causing diseases to appear (vyādhikaraṇa; 10.23–33),[804] causing insanity (unmattīkaraṇa; 10.36–41), recipes against diseases of eyes, ears, teeth, etc. (12.51–93),[805] allaying hunger and thirst (12.98–105). Chapter fourteen is about vegetable (1–23) and animal poisons (24–152), upaviṣas (153–155), factitious poisons (156-166), poisons arising when substances are mixed (167–171), and the poisonous substance in bhallātaka oil (172–173). Chapter fifteen is concerned with the purification of mercury (1–41), cinnabar (hiṅgula; 42), sulphur (43–47), mica (48–65), and other, mostly inorganic, substances.

Authorities to whom recipes are attributed are: Bhojarāja (5.26), Bhūpati (8.159), Cakradatta (7.58), the author of the *Haramekhalā* (8.21), Kavipuṅgava (8.187), Mahādeva (13.66), Mūladeva (7.6; 8.28 and 142), Nāgārjuna (4.42 and 66),[806] Nārada (6.37), Nityanātha (6.78), Rantideva (5.45; 7.10),[807] Śambhu (13.16), Śiva (13.19; 14.126), Vātsyāyana (1.106), and Viśvāmitra (1.62). The *Vīratantra* is the only work quoted by name (10.14–15).[808]

Nityanātha's *Kāmaratna* is mentioned among the sources of the *Rasayogasāgara*.[809] The *Kāmaratna* is one of the sources of a *Kautukasāroddhāra*.[810] The work is quoted in the *Pāradasaṃhitā* and *Rasatattvavivecana*. It is referred to in Khare's commentary on the *Rasaratnasamuccaya*.

The *Kāmaratna* has many verses in common with the *Kakṣapuṭa*.[811]

Premature baldness (indralupta) goes under the name of vāyukṣīroṭaka (5.113).

Noteworthy names of plants are: aṅkulī (4.5), bhaṭikā (4.78), daṇḍā (8.9),[812] karkaśā (6.55), keśarāja (5.3),[813] mahākāla (4.79; 5.81),[814] methī (6.30 and 74), munikhaṇḍakaśāka (9.23), peṭārikā (8.49),[815] raktāgastya (6.43), sitapikataru (6.6),[816] śubhā (5.9),[817] śvetabandhūka (4.76), śvetānyapuṣṭākhyataru (4.53), śvetapikākṣa (4.52), trailokyavijayā (i.e., bhaṅgā; 6.28), triśūlī (3.26), and triśūlinī (14.59).

Since Bhojarāja, Cakradatta, and the author of the *Haramekhalā* are referred to, the work cannot be earlier than about A.D. 1100.

NITYANĀTHASIDDHA: *Vandhyāvalī*.[818]
NṚHARI: *Takrapānavidhi*.[819]

NṚSIṂHA: *Nṛsiṃhanidāna*.[820] The author mentions aṣṭasthānaparīkṣā and begins his work with nāḍīparīkṣā. The first chapter is called aśītivātavyādhinidāna; Nityānanda is referred to in its colophon. At the end, Nṛsiṃha describes many diseases as persons forming part of the court of their king, Kṣaya. His queen is Sukāmilā, his general (camūpati) Pāṇḍuroga, his sons are the several forms of Raktapitta, his companions are Śopha and Atisāra, his two ministers Śvāsa and Kāsa, his spies Vāta and Pitta, his horses Vāntika and Aruci, his singers and musicians Grahaṇī, Arśas, Gulma, and Śūla.[821]

NṚSIṂHABHAṬṬA: *Tāmbūlakalpasaṃgraha*. This work on betel chewing quotes the following authors and works: Āśvalāyanācārya, Atri, Bharadvāja, Dakṣa, Devala, Hemādri, Kātyāyana's *Smṛticandrikā*,[822] *Mārkaṇḍeyapurāṇa*, *Saṃgraha*, Śātātapa, *Smṛtimañjarī*,[823] Vaidya, Vasiṣṭha, *Vijñāneśvarīya* (i.e., the *Mitākṣarā* on the *Yājñavalkyasmṛti*), *Vṛddhavasiṣṭha*, and Vyāsa.

The reference to Hemādri establishes that the work cannot be dated earlier than the fourteenth century.[824]

NṚSIṂHAPAṆḌITA KĀŚMĪRA: *Guṇasārasamuccaya.*[825]
NṚSIṂHA SŪRI: *Vaidyasārasaṃgraha.*[826]
PADMANĀBHA: *Cikitsāsaṃgraha.*[827]

PĀNAKĀLARĀYA: *Netradarpaṇamu*, a treatise on eye diseases and their treatment, written in Telugu and dating from the sixteenth century.[828]

This work distinguishes ninety-six eye diseases. Those mentioned are:[829] four types of kāca (red, white, black, yellow), śvetapaṭala, raktapaṭala, pītapaṭala, kṛṣṇapaṭala, divāndha,[830] timira, netrapuṣpa, niśāndha,[831] jalasrāva, atisrāva, durmāṃsa, netravāta, netragandhi, netradāha, netraśotha, netraśūla, netralūtikā, kṛṣṇapilla, śuklapilla, raktapilla, netrakāya, raktagranthi, netrabudbuda, netrasūkṣmacalana, netracalana, catvāri, netrabandha, netrabhagna, netrajāra, netramālinya, netrārśas, netrabhramaṇa, netraniścita, netrakhaṇḍa, dvinetra, ūrdhvadṛṣṭi, netrāgni, adhodṛṣṭi, netrapūya, netrakuṣṭha, netrapāta, netronmīlana, netranimīlana, netrārdhadṛṣṭi, netramala, netragurtana, mandadṛṣṭi, śuklapuṣpa, raktapuṣpa, kṛṣṇamaṇḍala, agnigranthi, netrātimala, pītapuṣpa, pakṣāghāta, pakṣaśūla, netravalmīka, pakṣadāha, pakṣapakṣman, pakṣaśobha, pakṣacalana, pakṣāticalana, pakṣajāta, padmakāya, padmakhaṇḍa, padmārbuda, jalasrāva (mentioned for the second time), netrapārśvaśula, netrapārśva, netrapārśvakaṇḍūti, netrapārśvacāñcalya, netrapārśvaśobha, netraśaraṇa, netrarodha, netrapārśvarakta, netravilokana, netraphalla, netrasphoṭaka, netragāḍhāgni, duḥkhanetra, netrapuṣpa, pakṣadurmāṃsa, netrapipīlikā, durmadāndha, netradurmāṃsa, vātābhiṣyanda, netrātiroma, kaphābhiṣyanda, raktābhiṣyanda, and pittābhiṣyanda.[832]

Thirty-five different ointments are described.

Spectacles were known to the author.

PARAMĀNANDA: *Bālacikitsā.*[833]
PARAMĀNANDA, son of Balabhadra: *Paramānandavilāsa.*[834]
PARAMĀNANDA: *Svarodaya.*[835]
PARAMĀNANDA MIŚRA, son of Narottama Miśra: *Siddhāntadīpa.*[836]
PARAMEŚVARARAKṢITA: *Gaṇādhyāya*, on the classification of medicines.[837]
PĀRŚVADEVA: *Sukarayogaratnāvalī.*[838]
PĀRVATĪNĀTHA: *Paryāyamuktāvalī.*[839]

PERANA: *Vaidyasāramu*, a work in Telugu, containing many prescriptions and procedures popular in Āndhra, and written on the lines of the siddhakriyās of the Navanātha Siddhas; it may date from about A.D. 1600.[840]

PRĀṆANĀTHA, son of Kātyāyana Bhaṭṭa: *Bhaiṣajyasārāmṛtasaṃhitā.*[841]
PRAYĀGA: *Prayāgasaṃgraha.*[842]
PRĪTIRĀMASENA: *Sāratilaka*, a work on fevers.[843]

PŪJYAPĀDA[844] is credited with:[845] (1) *Auṣadhayogagrantha*;[846] (2) *Bālagrahaśānti*;[847] (3) *Bhaiṣajyaguṇārṇava*;[848] (4) *Cikitsāviṣaya*;[849] (5) *Kalyāṇakāraka*;[850] (6) *Madanakāmaratna*;[851] (7) *Madanasnuhīrasāyana*;[852] (8) *Mahāpūrṇacandrodaya*;[853] (9) *Nāḍīparīkṣā*;[854] (10) *Nidānamuktāvalī*[855] or *Siddhāntibhāṣya*;[856] (11) *Pūjyapādavaidyaka*; (12) *Rasaratnākara*;[857] (13) *Rasatantra*; (13) *Ratnākarādyauṣadhayogagrantha*;[858] (14) *Rudantyādikalpa*;[859] (15) *Surasasaṃgraha*;[860] (16) *Śūlakuṭhāryauṣadhavidhi*;[861] (17) *Vaidyakagrantha* or *-śāstra*;[862] (18) *Vaidyakayogasaṃgraha*, *Vaidyasāra* or *-sārasaṃgraha*;[863] (19) *Vaidyavidhāna*;[864] (20) *Vidyāvinoda*;[865] (21) *Vīryavṛddhyauṣadhavidhāna.*[866]

A *Pūjyapādanighaṇṭu* is quoted in Basavarāja's *Basavatantra.*[867] A *Samādhiśataka* by Pūjyapāda(?) is also recorded.[868] Gommaṭadeva refers in his *Merutantra* to a *Vaidyāmṛta* by Pūjyapāda.[869] A *Netraprakāśikā* in the form of a dialogue between Hayagrīva and Pūjyapāda is also known.[870]

A number of the mentioned works are sometimes ascribed to Devacandra:[871] *Bhaiṣajyaguṇārṇava*,[872] *Madanakāmaratna*,[873] *Nidānamuktāvalī*,[874] *Ratnākarādyauṣadhayogagrantha*,[875] and *Rudantyādikalpa.*[876]

Formulae attributed to Pūjyapāda are found in many medical treatises, e.g., in an *Auṣadhayogagrantha*,[877] the *Āyurvedasaukhya* of Ṭoḍara, the *Basavarājīya*,[878] the *Bṛhannighaṇṭuratnākara*,[879] the *Cikitsāsāra* of Gopāladāsa,[880] the *Rasapārijāta*,[881] the *Rasapradīpa* of Prāṇanātha,[882] a *Rasaratnākara*,[883] the *Rasaratnakaumudī*,[884] the *Ratnākarauṣadhayoga*,[885] a *Rudantyādikalpa*,[886] the *Sahasrayoga*,[887] the *Tailaprayoga*,[888] the *Vāhaṭa* (or *Bāhaṭa*) by Gaurīputrakārttikeya,[889] the *Vaidyacintāmaṇi*,[890] and the *Yogaratnākara.*[891]

Some of Pūjyapāda's prescriptions were couched in a style, peculiar to Jain medical works.[892]

References to Pūjyapāda as a medical author occur in the *Jñānārṇava* of Śubhacandra,[893] the *Khagendramaṇidarpaṇa*,[894] Khare's commentary on the *Rasaratnasamuccaya*, the *Pārśvapurāṇa* by Pārśvapaṇḍita,[895] the *Rasapradīpa*,[896] the *Rasaratnasamuccaya*,[897] the *Vaidyaśāstrapravartakācāryanāmasamuccaya*, Akalaṅka's *Vidyāvinoda*,[898] and in an inscription.[899]

Pūjyapāda is mentioned as a Mahāsiddha in the *Haṭhayogapradīpikā* (1.7) and as a Rasasiddha in Caturbhuja's commentary on the *Rasahṛdaya* (1.7). Pūjyapāda's fame as a medical expert has remained alive until recent times.[900]

Opinions differ with regard to the identity of Pūjyapāda, author of the *Sarvārthasiddhi*, the *Jainendra* grammar, etc., with the medical author of the same name.[901] The former is dated to the first half of the fifth century,[902] latter half of the fifth century,[903] the period A.D. 464–524,[904] or about A.D. 700.[905] The medical author is sometimes placed in the thirteenth century.[906] His date is difficult to establish, but he is earlier than the *Khagendramaṇidarpaṇa* (A.D. 1360), which quotes him.

PŪRṆASETŪTTAMASŪRI: *Vṛddhayogaśataka* or *Vaidyavallabha.*[907]
PURUṢOTTAMA, pupil of Nīlakaṇṭha: *Bheṣajapaddhati.*[908]
PURUṢOTTAMA: *Vaidyakasāra.*[909]
PURUṢOTTAMA, son of Jñānakara, grandson of Śaṃkara: *Yaśaścandrikā.*[910]
PURUṢOTTAMADATTA: *Yogaratnasaṃgraha.*[911]
PURUṢOTTAMAPREṢṬHA: *Puruṣottamatarka.*[912]

RĀDHĀKṚṢṆA: (1) *Koṣasaṃgraha*;[913] (2) *Nighaṇṭu*,[914] or *Nighaṇṭusārasaṃgraha*;[915] (3) *Oṣadhināmāvalī*, names of medicinal plants in alphabetical order.[916]

RĀDHĀMĀDHAVA: *(Cikitsā)ratnāvalī*.[917]
RAGHUDEVA: *Pathyāpathyanirṇaya*.[918]
RAGHUNANDANA: *Mugdhabodha*.[919]

RAGHUNĀTHA from Mathurā: (1) *Āryadeśamāgadhamāthurakṣatriyabhiṣagraghunāthanāmāmnāya*; this work, lost in the original Sanskrit, forms part of the Tibetan Tanjur under the title of *Ḥphags-yul dbus-ḥgyur ma-thu-raḥi rgyal-rigs-kyi sman-pa Ra-ghunā-thaḥi gdams-pa*;[920] (2) *Atigambhīropadeśagaṇāḥ*; this short treatise deals with the treatment by means of mantras of disorders caused by grahas; it is preserved in a Tibetan translation with the title of *Śin-tu zab-paḥi man-ṅag-gi ćhogs-rnams*; the tract was collected by the Tibetan physician Dar-mo sman-rams-pa[921] and translated in the Potala by Lhun-grub.[922]

RAGHUNĀTHADĀSA: *Dīpikā*.[923]
RAGHUNĀTHAMIŚRA: *Sārasaṃgraha*.[924]
RAGHUNĀTHA NARAHARI JYOTIṢĪ: *Anupānamañjarī*.[925]

RAGHUNĀTHAPRASĀDA:[926] (1) *Caryāpadmākara*;[927] (2) *Vaidyakalpadruma*;[928] (3) *Vājīkaraṇakalpadruma*.[929]

RAGHUNĀYAKA: *Nighaṇṭusāra*.[930]
RĀJENDRA: *Aṣṭāṅgaśuddhi*.[931]
RĀMA: *Yogaratnāvalī*.[932]
RĀMACANDRA, of the Guha family: *Cakradattanāmakagrantha*.[933]

RĀMACANDRA, son of Prabhākara: *Indrakośa* or *Rājendrakośa*, written at the request of Indrasiṃha, king of Gauḍa.[934]

RĀMACANDRA: (1) *Vaidyacintāmaṇi*;[935] (2) *Vaidyakalpadruma*.[936]
RĀMACANDRA: *Kriyāvidhi*.[937]
RĀMACANDRA: *Rāmacandrikā*.[938]
RĀMADĀSA, pupil of Bhavānīprasāda: *Śarīraniścayādhikāra*.[939]
RĀMAKṚṢṆA: *Vaidyaratnākarabhāṣya*.[940]
RĀMAKṚṢṆABHIṢAJ: *Dravyapradīpa*.[941]
RĀMALOCANAŚARMAN: *Kālanirṇaya*.[942]
RĀMĀNANDADVIJA: *Cikitsāsārasaṃgraha*.[943]

RĀMĀNANDANĀTHA: *Auṣadhālaṃkāra*, in Sanskrit and Marāṭhī. This work forms chapter six of part three of the author's *Mahāvaidyabhūṣaṇa*; its material is drawn from *Madanapāla-*, *Dhanvantarīya-*, and *Rājanighaṇṭu*.[944]

RĀMĀNANDAPAṆḌITA: *Ārogyakalpadruma*.[945]
RĀMANĀRĀYAṆA KAṆṬHAHĀRA: *Yogapradīpa*.[946]

RĀMANĀTHA: *Yogamahārṇava*.[947] This work is quoted in Hariśaraṇānanda's *Kūpīpakvarasanirmāṇavijñāna*; it is one of the sources of the *Rasayogasāgara*.[948]

RĀMĀNUJA: *Bhaumāmṛta*.[949]
RĀMĀNUJA YATIVARA: *Vaidyaratnāvalī*.[950]
RĀMEŚVARA, pupil of Cintāmaṇi: *Sadyogacintāmaṇi*.[951]
RĀMEŚVARA: *Vaidyasarvasvasaṃgraha*.[952]

RĀVAṆA: *Arkaprakāśa*,[953] a monograph on pharmaceutical preparations of the type called arka.[954]

The *Arkaprakāśa*,[955] consisting of 985 verses[956] which are arranged in ten chapters (śataka), has been composed in the form of a dialogue between Rāvaṇa and his wife Mandodarī, who is with child. Mandodarī asks her husband to explain to her the means by which she will remain free from pain, and which will make her child thrive. Rāvaṇa then proceeds to pass on to her the knowledge he received from Pārvatī (1.1–16).[957] Nonetheless, the *Arkaprakāśa* is not predominantly concerned with kaumārabhṛtya.

Chapter one deals, after the sixteen verses of the introduction, with the classification of medicinal plants (1.17–19) and the parts of these to be used (1.20–22); the basic concepts of pharmacology (1.23–45); five types of pharmaceutical preparation: kalka, cūrṇa, rasa, taila, and arka; of these, kalka has the weakest, arka the strongest action (1.46–49). The remaining part of chapter one is concerned with the yantra to be employed in the preparation of an arka (1.52–60), the cup for the ingestion of an arka (bhojanapātra; 1.61–69), the characteristics of a well-prepared arka (1.74–75), the way of ingesting it (1.79), the six types of fire used in preparing an arka (1.80–85), the characteristics of the messenger sent to the physician (1.92–94), the description of a rogoddhāracakra (1.95–96),[958] and related subjects.

Chapter two deals with the five types of substances from which an arka can be extracted (2.1–37); removing a foul smell from an arka and conferring fragrancy upon it (2.38–57); arkas made from meat (2.58–71); the preparation of mineral acids (2.72–80); different kinds of meat (2.81–83); the preparation of alcoholic beverages (2.84–97);[959] the preparation of an arka from hemp (bhaṅgā) and thornapple seeds (dhattūrabīja; 2.98–99). Chapter three describes arkas from simples (kevalārka) and their effects. Chapter four is about groups of substances and their medicinal uses; animals are classified, and arkas prepared from their flesh described as remedial agents; at the end of the chapter (4.96), an arka prepared from human flesh is praised as a very potent agent against poison.[960] Chapters five, six, and seven are about arkas to be prescribed against various diseases, which are, in broad outline, arranged in the same order as in the *Mādhavanidāna*. The second part of chapter six is devoted to the goddess Śītalā and the disease of that name. The contents of chapter eight are of a magical character; it is concerned with subjects like vaśīkaraṇa, vidveṣaṇa, uccāṭana, māraṇa, mohana, etc.[961] Chapter nine is about gaṇas (groups of substances, plants, and animals), and chapter ten

about subjects connected with alchemy.

Sources are not indicated in the *Arkaprakāśa*. The ingredients of some of the arkas described are strikingly similar to those of compound medicines found in the *Cakradatta*.[962]

The *Arkaprakāśa* is quoted in the *Āyurvedīya Khanijavijñāna*, by Kāñcīnātha in his commentary on the *Ratirahasya*,[963] and in Nirañjanaprasāda Gupta's *Pāradasaṃhitā*. Rāvaṇa's *Arkaprakāśa* is mentioned in Khare's commentary on the *Rasaratnasamuccaya*. It is cited as Laṅkānātha and Laṅkeśa in the *Śāligrāmanighaṇṭubhūṣaṇa* of the *Bṛhannighaṇṭuratnākara*.[964]

Sanskrit commentaries on the *Arkaprakāśa* were written by Nārāyaṇaprasāda[965] and Rāmanātha Vaidya.[966]

The *Arkaprakāśa* is a unique text in being the only monograph on arkas, a type of pharmaceutical preparation not met with in most Sanskrit medical treatises. The term arka may have been borrowed from Arabic or Persian;[967] the Arabic word 'araq, the original sense of which is sweat, conveys several meanings. In Islamic medicine it is used to denote a medicinal tincture, essence, or distilled spirit.[968] The earliest Sanskrit text mentioning an arka is Soḍhala's *Gadanigraha* (prayogakhaṇḍa, āsavādhikārara 272). The arkas described in the *Arkaprakāśa* are prepared by means of a yantra, described in chapter one, that is half-way towards a distilling apparatus.[969] The distillates obtained by means of this apparatus may have been more or less perishable, since it is recommended to add sulphur (gandhapāṣāṇa) to all arkas or fumigate them with it (2.41), which may have increased their storage life.[970] A yantra, more suitable for distilling purposes, and used for the preparation of mineral acids, is described in chapter two (2.72–80).

The five types of medicinal preparation, namely kalka, cūrṇa, rasa, taila, and arka (1.46), form an unusual series, from which kvātha and śītakaṣāya are absent. The verses on the preparation of mineral acids (śaṅkhadrāvaka; 2.72–80) are interesting; the fluid produced, also called kṣārārka, has to be tested by dissolving bones, meat, and shells in it.

The arrangement of the diseases in chapters five to seven agrees partly with Mādhava's order. Differences are: the absence of arśas; the insertion of verses on children's diseases and the bālagrahas[971] between those on grahaṇī and agnimāndya (5.11–16); the addition of bhasmaka to the disorders of the digestive fire (5.21); the mention of insects (matkuṇa, makṣikā, maṣaka) and serpents in the verses on krimiroga (5.24); the insertion of verses on kaṇṭhadāha (5.35) and amlapitta (5.36) between raktapitta and rājayakṣman; the addition of verses on disorders caused by pitta (5.80) and kapha (5.81) between āmavāta and śūla; verses on gulma, plīharoga, and yakṛt (5.87–91) before those on mūtrakṛcchra up to prameha; the absence of verses on udara in general and on vṛddhi; verses on śotha (6.9–11) between vidradhi and vraṇaśotha; the insertion of a verse on mṛtarakta (6.28) between bhagna and nāḍīvraṇa; verses on kuṣṭha (5.98–101) between medoroga and galagaṇḍa; the absence of verses on śītapitta and related disorders; the addition of snāyuroga (6.35) between visarpa and visphoṭaka; the addition of verses on phiraṅga (6.38–40) between visphoṭaka and masūrī; a different order of the chapters on mukha-, karṇa-, nāsā-, netra-, and śiroroga; verses on viṣa (7.59–68) before those on women's diseases; the addition of verses on somaroga (7.72) and bahumūtra (7.73) after those on pradara; the addition of verses on vājīkaraṇa and related subjects at the end of chapter seven (7.92–98).

The *Arkaprakāśa* has two verses on diseases of elephants and horses (3.12; 4.53).

Chapter nine enumerates the items belonging to a rather long series of gaṇas, which are, partially, unusual; examples are: karṇa- (9.1), rañjana- (9.3–4), pācana- (9.57), uṣṇa- (9.58), dīpana- (9.59), and puṣṭikāragaṇa (9.60–61).

Chapter ten describes zinc (jasada; 10.24–26) among the metals.

An interesting section is formed by the second half of chapter six, devoted to Śītalā. It opens with a dialogue between Brahmā and Śiva. It tells that the living beings were created by Brahmā in the Kṛtayuga, but that danger has arisen in the present age because of their abundant multiplication. Brahmā asks Śiva about the measures that can to be taken in order to improve this condition of the world. As a curative measure, Śiva creates from his trident a dreadful being, called Kāla. Śiva's consort, Bhavānī, is requested to create a wife for this being. She creates a beautiful woman, called Bhavitavyatā, and the couple is married by Bhavānī. From their union a host of evils arises, wild beasts, demons, diseases, etc. After some time, Kāla becomes so arrogant as to want to kill the great gods. In order to stop him, a serious disease is sent to attack him, from which he is only freed after praising Śītalā. It is said that everyone who praises Śītalā in the same way, by reciting the *Śītalāṣṭaka*, will obtain freedom from fear of disease. The stotra in praise of Śītalā (6.75–82) is identical with that found in the *Bhāvaprakāśa*.

Unfamiliar names of diseases found in the *Arkaprakāśa* are loharoga (1.45), mahārti (a children's disease; 7.88), mṛtarakta (6.28), and piṅgameha (10.29). Noteworthy names of children's diseases caused by demons are kaṅkara, śoṇaka, koṇa or sakoṇa, and kaṭhina (5.14). Some uncommon names of bālagrahas are Veṇī, Yeṇī, Kukkurā, Raktasārikā, Prabhūtā, Tvaritā, and Rātri (5.15).

The materia medica of the *Arkaprakāśa* presents numerous unusual substances; part of these betray a Muslim origin. Some of the more important are: amlapattrī (9.17),[972] bājarī (9.33),[973] biḍālakaṇṭaka (8.36),[974] cambelī (4.36; 8.35),[975] candrasūra (3.13; 4.12; 9.59),[976] dakṣiṇā doḍī (9.40),[977] dārucīnī (4.21),[978] dārucīrṇaka (4.6),[979] gaṇeśapriya (8.80),[980] gauḍapattrī (9.85), gaurīphala (9.23),[981] gorohiṇī (9.61),[982] gulāba (9.76),[983] guladāvadī (4.36 and 99),[984] guruhelī (8.43), gururohiṇī (9.61), haṃsahelī (8.1),[985] jalaśīrṣaka (9.57), kṣīravārāhikā (4.26), kuhundarā (3.97), liṅgadaṇḍa (9.37), peṭhaka (2.92),[986] revacīnī (9.56),[987] sannāha (9.56),[988] and śaurinī (2.18).[989]

No particulars are known about the authorship of this work.[990] P. Hymavathi suggests that the author, Rāvaṇapaṇḍita, may be a son or disciple of Bhāvamiśra, because of the close resemblance between many verses of the *Arkaprakāśa* and the *Bhāvaprakāśa*.[991]

The mention of phiraṅgaroga and the occurrence of the *Śītalāṣṭaka* make it possible to conclude that the *Arkaprakāśa* has been composed after the age of Bhāvamiśra. The description of a distilling apparatus and a number of items from the materia medica[992] are in favour of placing it in the seventeenth century or later.[993] Kāñcīnātha's quotation

from the *Arkaprakāśa* in his commentary on the *Ratirahasya* is of no avail, because the date of this author is unknown.[994]

RĀYASIṂHA: *Rāyasiṃhotsava* or *Vaidyakasārasaṃgraha*.[995]

REVAṆASIDDHA:[996] (1) *Vīrabhaṭṭīya*; (2) *Revaṇasiddhakalpa*.

(1) *Vīrabhaṭṭīya*[997] or *Āyurvedasāra*.[998] This work[999] consists of 244 verses, arranged in five chapters. The subjects dealt with are: (1) a description of the mythical prototype of a physician;[1000] a list of medical authorities and works; patients to be treated and to be rejected; the types of country (deśa); the doṣas, the tastes, and their interrelations; anatomy; (2) the classification of diseases; karmavipāka; (3) the effects of the ten kinds of vāyu[1001] when vitiated, and of the other doṣas; (4) the examination of the pulse; (5) aṣṭādaśas; piṇḍavardhanavidhi; puruṣa- and strīlakṣaṇa; yugalajñānalakṣaṇa.[1002] One of the MSS[1003] has a sixth chapter of 120 verses, concerned with śoṇitavāta, dhanurvāta, the names of eight rasas,[1004] fevers, fasting in fevers, the digestive fire, prasūtivāta, and some other, unconnected, subjects.

Authorities and works found in the list of chapter one are: *Āśvineya*, Bāhaṭa,[1005] *Bheṣajakalpa*, *Candrajñāna*,[1006] Caraka, *Cūḍāmaṇi*, Dāmodara, *Indrasata*(?), *Kalyāṇa*, *Kalyāṇakāraka*, Kāpālin, Kārmukhi(?),[1007] Kṛṣṇeya, Mahāstra(?), Nāgārjuna, Nandinātha,[1008] *Pārijāta*, *Rasadarpaṇa*, Rasaputra,[1009] *Rasārṇava*, *Rasendra*, Sadyadi(?), Śākhara,[1010] *Saṃgraha*, *Śākteya*, *Śārīra*, Somanātha, Somaparita(?), *Sūtarāja*,[1011] *Sūtrasthāna*, Vaśiṣṭha, Vibhra(?), Vīrabhaṭṭaka, *Yamala*, and Yuṣmini.[1012]

This list demonstrates the influence of rasaśāstra and Tantrism on the *Vīrabhaṭṭīya*.

(2) *Revaṇasiddhakalpa*,[1013] a treatise about mantras, yantras, and rasāyana.[1014]

Revaṇa was a Śaiva, who established a Śaivapīṭha in Kolanupāka (Āndhradeśa). This centre is supposed to have been shifted by him later to Balekonnur (Karṇātaka).[1015]

SADĀNANDA: *Śārīraviveka*.[1016]

SĀGĪ: *Vaidyavinoda*.[1017]

ŚĀLAGRĀMA: *Dhanvantari*.[1018] This work is one of the sources of the *Rasayogasāgara*.[1019]

ŚĀLIGRĀMAPAṆḌITA: *Vīravaidyaratnākara*.[1020]

ŚĀMA: *(Sāra)saṃgrahataraṅgiṇī*, a manual of therapeutics and dietetics in twenty-three chapters (taraṅga). The *Yogataraṅgiṇī* is referred to as a source.[1021]

ŚĀMADATTAPAṆḌITA: *Yogeśvara*.[1022]

SAMANTABHADRA: Ugrāditya declares in his *Kalyāṇakāraka* (20.86) that his work is a shortened version of an extensive treatise on the eight limbs of āyurveda by Samantabhadra.[1023]

A partially preserved medical treatise, the *Siddhāntarasāyanakalpa*, is ascribed to Samantabhadra.[1024] This work, said to have contained 18,000 verses, shows the influence of a Jain koṣa, the *Vaidyakanighaṇṭu* by Amṛtanandin, in which the names of many medicinal plants are replaced by synonyms connected with Jainism, such as ṛṣabhā = āmalaka, vardhamāna = śvetairaṇḍa, vardhamānā = madhuramātuluṅga, vītarāga = āmra.[1025] A *Puṣpāyurveda*, now completely lost, is also attributed to him.[1026]

The date of the medical author Samantabhadra is unknown. The famous Jain author of the same name is assigned to the second century,[1027] the first half of the fifth century,[1028] about A.D. 450 (?),[1029] fifth or sixth century,[1030] A.D. 600,[1031] or the first half of the eighth century.[1032]

ŚAMBHU: *Kālajñāna*.[1033] The chapter headings and the extent of the treatise differ considerably in the MSS.[1034]

The text of one of the MSS[1035] consists of seven chapters (samuddeśa), dealing with: (1) kālajñānavicāra, (2) jīvitalakṣaṇa, (3) mṛtyulakṣaṇa, (4) nāḍīlakṣaṇa, (5) jvaralakṣaṇa and jvarotpannavivaraṇa, and (7) jvaracikitsā.

Another MS[1036] contains 128 verses, arranged in five chapters (samuddeśa): (1) general precepts, (2) curable diseases, (3) incurable diseases, (4) nāḍīs, (5) the treatment of fevers. Two additional chapters on nāḍī- and mūtraparīkṣā are said to be borrowed from the *Śārṅgadharasaṃhitā*.

A third MS[1037] is complete in 177 verses, arranged in six chapters: (1) kālavivaraṇa, (2) jīvitalakṣaṇa, (3) svara-, śarīra-, and nakṣatralakṣaṇa, (4) dvādaśajvaranidāna, (5) nāḍīparīkṣā, and (6) mūtraparīkṣā.

One of the MSS of the Bodleian Library, Oxford,[1038] has seven chapters: (1) and (2) title unknown, (3) svara-, gati-, mṛtyu-, nakṣatralakṣaṇa, (4) jvaralakṣaṇa, (5) and (6) mūtraparīkṣā, and (7) nāḍīparīkṣā. Another MS of the Bodleian Library[1039] quotes the *Rasaratnākara*, *Yogaratnāvalī* and other sources. Other MSS again describe nāḍī-, mūtra-, doṣa-, and viṭparīkṣā,[1040] and even aṣṭasthānaparīkṣā.[1041]

The introductory stanzas of the *Kālajñāna* usually mention that it is accompanied by a *Kalā*, probably a commentary.[1042]

The *Kālajñāna* was rendered into Rājasthānī verse by Lakṣmīvallabha, a Jain monk of the Kharataragaccha, in A.D. 1684/85.[1043]

A *Kālajñāna*[1044] is quoted or referred to in a *Bālacikitsā*,[1045] Vācaka Dīpacandra's *Laṅghanapathyanirṇaya*, Karandīkar's *Nidānadīpikā*, Meghamuni's *Meghavinoda*,[1046] and Nayanasukha's *Vaidyamanotsava*.

The quotation by Nayanasukha, whose *Vaidyamanotsava* was completed in 1592, establishes the terminus ante quem of the *Kālajñāna*. The presence of mūtra- and nāḍīparīkṣā among its contents shows it to be later than Vaṅgasena, respectively Śārṅgadhara.[1047] The reference to aṣṭasthānaparīkṣā in one of the MSS[1048] proves that at least this version of the *Kālajñāna* cannot be earlier than about 1500.[1049]

One of the edited versions of Śambhu's *Kālajñāna*,[1050] consisting of about 130 verses and some prose, gives clear evidence of Tantric influences.

The opening verse refers to Śambhu as the one who expounded the knowledge concerning time (kālajñāna). The treatise proceeds with describing the power of time

which ultimately destroys all living beings, even the gods (2–10). The four basic needs (vāñchā) of a human being (food, drink, sleep and sex) are mentioned (11), followed by descriptions of the six cakras, sixteen ādhāras, three lakṣas and five types of vyoman (12–23).[1051] Then follow some verses (24–28), quoted from the *Svarodaya*, which are concerned with breathing through the nose and abnormal types of this breathing which are indicative of the approach of death within a specified period of time. The next verses (29–34), probably also borrowed from the *Svarodaya*, describe some ariṣṭas characterized by the inability to perceive particular nakṣatras, and abnormal perceptions, especially with regard to the reflections of the sun and the moon in water. Some verses (35–40), partly taken from the *Carakasaṃhitā* (I.2.3–6), are about ariṣṭas in general. The next part of the treatise is arranged in three chapters, called respectively pañcendriyārthavipratipatti (41–60), chāyāvipratipatti (61–90), and svabhāvavipratipatti (91–116), in agreement with three chapters of the *Suśrutasaṃhitā* (Sū.30, 31, 32). This part describes ariṣṭas in verse and some prose, largely borrowed from the *Suśrutasaṃhitā*[1052] and *Carakasaṃhitā*.[1053] The work ends with verses on chāyāpuruṣalakṣaṇa (122–134), here said to derive from Śambhu, which are also found in Trimalla's *Yogataraṅgiṇī* (14.1–11) and *Bṛhadyogataraṅgiṇī* (44.30–40), where they are quoted from the *Śivāgama*.

A *Saṃnipātakalikā* is also attributed to Śambhu.[1054]

ŚAṂKARAKAVI: *Vṛttisaṃkhyānidāna*.[1055]
SANĀMAKARAṆA, son of Purovikaraṇa(?): *Agadarājatantra*.[1056]

SANATKUMĀRARAHASYA: *Anubhogakalpaka*, in twelve chapters (prakaraṇa), on the properties of drugs.[1057]

ŚĀNTAPPA: *Akalaṅkasaṃhitā*.[1058]

SARVAHITĀMṚTADATTA: *Brahmavedasārāṅgadharacakra*.[1059] This work forms part of the Tibetan Tanjur under the title of *Ćhaṅs-paḥi rig-byed rgya-mćhoḥi yan-lag ḥjin-pa g-yo-ba-can*. It was collected by Dar-mo sman-rams-pa blo-bzaṅ chos-grags[1060] and translated in the Potala into Tibetan by Raghunātha, an Indian physician from Mathurā,[1061] and Lhun-grub.[1062]

SAUDĀSAPUTRA: *Vaidyamanotsava*.[1063]
SĀYAṆA: *Sārṇīya*.[1064]
ŚEṢARĀJA: *Śeṣarājanighaṇṭu*.[1065]
SĪTĀRĀMA ŚĀSTRIN: *Śākanighaṇṭu*.[1066]
SĪTĀRĀMA SOMANĀTHA: *Vaidyasāra*.[1067]

ŚIVA is the reputed author of several works. (1) *(Auṣadhi)kalpalatā*.[1068] (2) *Āyurveda*, a treatise in the form of a dialogue between Śiva and Pārvatī.[1069] (3) *Bālatantra* or *Cikitsākalikā*.[1070] (4) *Indrajāla*,[1071] a short Tantric treatise on ṣaṭkarman. As usual in such a work, subjects dealt with are: making a woman infertile, curing infertility, preventing

abortion and stillbirths, promoting potency in males, etc. This treatise cannot be earlier than the seventeenth century, since Kṛṣṇānanda Vidyāvāgīśa's *Tantrasāra* is mentioned as one of its sources. (5) *Śalyatantra*.[1072] (6) *Śārīrakasūtrasthāna*.[1073] (7) *Udakalakṣaṇa*.[1074] (8) *Nāḍīvijñānīya*.[1075]

ŚIVACANDRA: *Vaidyakasāra*.[1076]

ŚIVADĀSA: (1) *Pathyāpathyādhikāra*;[1077] (2) *Sārāvalī*;[1078] (3) *Yogasāra(samuccaya)*.[1079]

ŚIVA DULĀRE: *Pathyāpathya*.[1080]
ŚIVADVIJA: *Śivasādhaka*.[1081]
ŚIVĀNANDABHAṬṬA GOSVĀMIN: *Vaidyaratna*.[1082]
ŚIVAPRASĀDA: *Prastāvasaṃgraharatnākara*.[1083]
ŚIVARĀMA, a Siddha: *Siddhasārakhaṇḍa*.[1084]
SOMANĀTHA: *Kalyāṇakāraka*.[1085]
SOMANĀTHA MAHĀPĀTRA: *Vaidyasaṃkṣiptasāra*.[1086]

SOMAYA: *Bhiṣagvarāñjana*, written in Telugu, in the form of a dialogue between Dhanvantari as the teacher and Agastya as his pupil. Sources mentioned are the *Divyacintāmaṇi*, *Rasapradīpikā* and *Bāhaṭa*. This work may date from the first half of the seventeenth century.[1087]

ŚRĪDHARADEVA: *Vaidyāmṛta*.[1088]
ŚRĪDHARA(MIŚRA): (1) *Vaidyamanotsava*;[1089] (2) *Vaidyāmṛta*.[1090]
ŚRĪGUMĀDĪŚA: *Sārasaṃgraha*.[1091]
ŚRĪKĀNTADĀSA: (1) *Vaidyavallabha*;[1092] (2) *Paribhāṣā*.[1093]
ŚRĪKAṆṬHANANDANA of Bodhi village: *Paryāyamañjarī*, a medical lexicon.[1094]

ŚRĪKAṆṬHAPAṆḌITA:[1095] *Yogaratnāvalī*,[1096] a treatise of Tantric inspiration, in nine chapters (paṭala or pariccheda) with a total of 2,500 verses.[1097] It deals with Tantric subjects, medicine, cures for poisoning, measures counteracting afflictions caused by demons, etc.

The titles of the chapters are: samastaviṣanigraha (verses 1–242), bhūtagrahaśākinīnāṃ jvaranigrahaḥ (243–440), samīhitasādhikakarmādhikāra (441–1077), kautukādhikāra (1078–1589), vaidyakādhikāra (1590–2198), rasāyanavidhi (2199–2346), ratnādiparīkṣādhikāra (210 verses), kālajñānavidhi (seventy-one verses), and auṣadhacikitsāprakaraṇa (44 verses; extracted from Nāgārjuna's *Kakṣapuṭa*).[1098]

The *Yogaratnāvalī* enumerates twelve treatises on poisons (viṣatantra):[1099] *Pakṣirāja*,[1100] *Śikhāyoga*,[1101] *Bindusāra*, *Śikhāmṛta*,[1102] *Tottala*,[1103] ...*kūṭa*, *Kṛtsnāṅga*,[1104] *Tottalottara*,[1105] *Kaṭāha*,[1106] *Chāgatuṇḍa*,[1107] *Sugrīva*,[1108] and *Karkaṭāmukha*.[1109]

An unspecified *Yogaratnāvalī* is quoted or referred to in a number of medical and other treatises: Basava's *Śivatattvaratnākara*, Gulrājśarmamiśra's *Viśikhānupraveśavijñāna*, Jñārasarāma's version of the *Amṛtasāgara*, Kalyāṇadāsa's *Bālatantra*

(according to Vācaka Dīpacandra), the *Kautukasāroddhāra*, *Pākamārtaṇḍa*, *Ratnākarauṣadhayogagrantha*, *Śārṅgadharapaddhati*, Ṭoḍara's *Āyurvedasaukhya*, Trimalla's *Yogataraṅgiṇī* and *Bṛhadyogataraṅgiṇī*, the *Vīrasiṃhāvaloka*, and the *Yogaratnākara*.

Evidence on the identity of the Śrīkaṇṭhapaṇḍita who wrote the *Yogaratnāvalī* is not available.

P. Hymavathi,[1110] however, does not hesitate to regard him as the philosopher Śrīkaṇṭha, who wrote a famous commentary on the *Brahmasūtra*.[1111] P. Hymavathi gives the following information:

Śrīkaṇṭhapaṇḍita was a great scholar in many fields, more popular as a Śaiva philosopher than as a medical scientist. A number of famous men belonged to his circle of students. Among these are: Mādhava Vidyāraṇya, Sāyaṇa and Bhoganātha, as well as the medical writer Naraharipaṇḍita, also called Nṛsiṃhapaṇḍita.

Śrīkaṇṭha was the guru of Saṅgama II of the Vijayanagar dynasty,[1112] who mentions him as such in one of his grants.

Śrīkaṇṭha's place of residence was, according to some, the Āmardhakapīṭha of Kāleśvaram, situated in the present Karimnagar district; others are convinced that he lived in Śrīkālahasti.[1113] Inscriptions referring to him are found in the Nellore[1114] district.

P. Hymavathi assigns Śrīkaṇṭha to the period A.D. 1300–1360.[1115]

ŚRĪKAṆṬHAŚARMAN: *Jīvarakṣāmṛta*.[1116]

ŚRĪKAṆṬHAPAṆḌITA, also called Śrīkaṇṭhasūri, was the author of the *Hitopadeśa*.[1117]

The treatise consists of about 1,050 verses, arranged in ten chapters (samuddeśa).

Chapter one (2) enumerates the eight items of aṣṭasthānaparīkṣā,[1118] but describes in detail five forms of parīkṣā only. More than half of the chapter (3–83) is devoted to the examination of the pulse (nāḍīparīkṣā). The wrist is said to be the chief place for this examination, but information on particular groups of diseases can be collected by feeling the pulse elsewhere: the pulse of the feet and ankles indicates disorders of the lower part of the body (9), the nāḍī of the umbilical region, called bodhinī, informs about diseases like udara, arśas and bhagandara (12–13), etc. Among the places to be examined is also the brahmarandhra (11). Twenty-four nāḍīs are said to transport the three doṣas (16–17); Iḍā conveys in particular vāta, Piṅgalā pitta, and Suṣumṇā kapha (23).[1119] The usual subjects of a treatise on nāḍīparīkṣā are covered: the characteristics of the pulses of the doṣas when normal and out of balance (20–41), the pulses in particular diseases (42–51), signs indicating incurability or death within a specified period of time (52–79), etc.[1120] The second subject of chapter one is the examination of the urine (mūtraparīkṣā; 84–123). The characteristics of the urine in disorders of the doṣas are described (87–92), the examination by means of a drop of oil (tailabindu; 93–98), the characteristics of the urine in a series of diseases (101–113),[1121] the prognostic meaning of the direction in which the drop of oil spreads on the surface of the urine (114–120),[1122] prognostication by adding ashes to the drop of oil (121), and the prognostic meaning of the form assumed by the drop of oil (122–123).[1123] The examination of the eyes (netrapārīkṣa; 124–132),[1124] face (mukhaparīkṣā; 133–134),[1125] and tongue (jihvāparīkṣā; 135–138)[1126] is also dealt with, but verses on mala-, śabda-, and

sparśaparīkṣā are absent.

Chapter two has some verses on the actions of the three doṣas (2–4), but is mainly concerned with the origin, symptoms and treatment of various types of fever (6–90; 102–104) and with the treatment of jvarātisāra (91–93). Chapter three is about diseases of the head (1–18), ears (19–25),[1127] nose (36–50),[1128] mouth,[1129] teeth and lips (51–79), and throat (80–105).[1130] Chapter four is about diseases of the eyes (1–104), and about nidrā and tandrā (105–109). Chapter five deals with the seven disorders located in the cardiac region: kāsa (2–14), śūla (15–53), udhvasī (54), kṣayaroga (55–73),[1131] gulma (74–87), hikkā (88–94), and hṛdroga (95–99). Chapter six is about the six abdominal diseases: chardi (2–14), udara (15–30), śvāsa (31–37), plīhan (38–44), particular forms of śūla (51–56), and ahijambuka (1),[1132] and about the six disorders of the urinary tract: prameha (61–71), mūtrakṛcchra (72–81), nararoga (82–90),[1133] mūtraśarkarā (91–99), mūtrarodha (100–107),[1134] and uṣṇavāta (108–109).[1135] Chapter seven is concerned with kuraṇḍa (1–15),[1136] arśas (16–33), atisāra (34–62), grahaṇī (63–81), and the five diseases of the legs (pādaroga): ślīpada (83–84), riṅgiṇīvāta (85–87), ūrustambha (88–91), vicarcikā (92–95), and turvala (82).[1137] Chapter eight deals with lūtā (1–30), bhagandara (31–36), jvālāgardabha (37–41), visphoṭa (42–45), govara (46), śītalā (47–49), and śopha (50–72),[1138] chapter nine with kuṣṭha (1–56) and vātaroga (57–98), and chapter ten with bālaroga (1–27), strīroga (28–59), vraṇa (60–66), nāḍīvraṇa (67–77), visarpa, raktamaṇḍala, kaṇḍū and dadru[1139] (78–84), arbuda (85–87), raktapitta (90–92), pāṇḍuroga (93–97), apasmāra and unmāda (98–104), agnimāndya (105–110),[1140] agnidagdha (111–112), viṣa (113–119), and granthi (120).[1141]

The *Hitopadeśa* is written in an easy style. The arrangement of the diseases as found in this text has no parallels elsewhere. The tridoṣa theory has a very important place, as appears from the description of the doṣic types of numerous diseases.[1142] Some generally recognized diseases are not mentioned at all, e.g., arocaka, mūrchā, pānātyaya, āmavāta, udāvarta, ānāha, medoroga, vidradhi, bhagna, śītapitta, amlapitta, and the majority of the kṣudrarogas. Diseases like somaroga, phiraṅgaroga, etc., are absent as well. The symptoms of an illness are usually described prior to its therapy.[1143]

The recipes are simple for the larger part; a few only are more complicated and provided with names.[1144] Rasayogas are not found in this treatise and mercury (pārada) is mentioned once only (3.13); opium and Cannabis are not prescribed. Religious elements are almost absent from Śrīkaṇṭha's therapy,[1145] even in the treatment of śītalā.

Sources are hardly mentioned; Śrīkaṇṭha refers to a *Śivamata* (1.80)[1146] and to Śambhudeva (8.30).[1147]

Śrīkaṇṭhasūri's *Hitopadeśa* is one of the sources of the *Rasayogasāgara*. The *Hitopadeśa* is quoted in Ananta's *Pratāpakalpadruma*, Vācaka Dīpacandra's *Laṅghanapathyanirṇaya*, and Meghamuni's *Meghavinoda*.[1148] A *Vaidyakasārasaṃgraha* (probably identical with the *Hitopadeśa*) is cited by Meghamuni. Śrīkaṇṭha is quoted in the *Prayogāmṛta*, Śrīkaṇṭhaśambhu in the *Śārṅgadharapaddhati*.[1149]

The *Hitopadeśa* presents a large number of noteworthy features in the field of nosology. The following eight types of fever are enumerated: caused by vāta, pitta, kapha, saṃnipāta, abhicāra, devaprakopa, grahaprakopa, and an eighth one of mental

origin (mānasa) (2.7).[1150] Two irregular fevers are added to the usually mentioned series: a type recurring every fifth (pañcamaka; 2.81) and one recurring every sixth day (ṣaṣṭhadinodbhava; 2.83).[1151]

Names of diseases occurring in this work only are: ahijambuka (6.1), bāla (7.87),[1152] chalikā (3.36),[1153] dhīmaḍa (10.82),[1154] govara (8.46), khasara (10.79),[1155] nālagulma (6.57–59), turvala (7.82), and udhvasī (5.1 and 54; 9.88).[1156] The term ghūrmi (4.107) is employed as a synonym of tandrā; kaṭigṛdhra (6.54–55) may be a synonym of kaṭiśūla. The term riṅgiṇīvāta (7.82 and 85–86) denotes the disorder commonly known as gṛdhrasī.[1157] The disorder called uṣṇavāta, usually regarded as a variety of mutrāghāta, is separately mentioned (6.60 and 108–109).[1158]

The verses on lūtā[1159] are interesting. Four doṣic groups of lūtā are distinguished, subdivided into a number of types, each one having its own name and location. The members of the vāta group are: śvetā, located on the right hand; kṛṣṇakarī, on the left hand; kapilā, on the nose; pītā, on the chin; trimaṇḍalā, on the right half of the body; vāmāṅgabhedinī, on the left half; viṣā, on the right shoulder; viṣāpahā, on the left shoulder; tāmravarṇā, on the kṛkāṭikā.[1160] The members of the pitta group are: kasanā, on the right hand; raktavatī, on the left hand; vīrakṣetragavā, on the right half of the body; mecakā, on the left half; karkaṭī, on the right side of the chest; piṅgalā, on the back. The kapha types are: raktā, on the right ear; pāṃśuvarṇikā, on the left ear; asitā, in the left armpit; sitā, in the right armpit; śyāmā, on the right side of the abdomen; śritā and udarā,[1161] on the left side of the abdomen; varadā, in the umbilical region; jaladā and ambukā,[1162] on the tongue. The saṃnipāta types are: mālāṅgulī, on the head; tālukarṇikā, on the forehead; kālakarṇī, between the eyebrows; jaladā, on the tongue; maṇipatnī, on the palate; taptavarṇikā, when hikkā is present; vaidehī, in the pharynx; vahnikarṇikā, in the cardiac region.

The disease called jvālāgardabha[1163] (8.37–39) is also divided into a number of types according to its location. These types are: gaura, on the back; piṅgala, on the head; kṛṣṇāsya, in the cardiac region; saumyadṛś, on the nose; kalahapriya, on the legs; vijaya, on the hands; kumbhakarṇa, on the buttocks; kapila, on the lateral parts of the abdomen; priyadarśana, on the chest. The group of diseases called kuṣṭha is divided into six (9.2–5) or the usual eighteen types (9.6–8). Ten kinds of vāta are distinguished and their actions described (9.58–65). Ten nāḍīs, in which these ten kinds are supposed to circulate, are mentioned by name:[1164] Iḍā, Piṅgalā, Suṣumṇā, Hastijihvikā, Alaṃmukhā,[1165] Yaśā,[1166] Mūṣā,[1167] Kandhārī,[1168] Śikhinī,[1169] and Kuhū (9.66–67).

Noteworthy names of medicinal plants are: bhūjayantī (10.73), devaḍaṅgarī[1170] (6.64 and 68), dullarī (2.75; 3.33; 4.105; 5.34 and 38; 6.31; 7.68), karṇamotā (10.69), kāśulī (2.26, 27, 39, 56), kaṭudugdhikā (7.22),[1171] kaṭutuṇḍīrikā (4.84),[1172] kāyaphala (4.36 and 67),[1173] laghuṭulvikā (6.92), maṅku[1174] (8.64; 9.26, 29, 35 and 39), paṅgulī (10.37), riṅgiṇī[1175] (2.52 and 73; 3.31 and 33; 5.34 and 38; 7.56 and 68; 8.64), riṅgiṇikā (2.24), tavakṣīra (5.7; 10.36),[1176] and tuṇḍīrī (2.101).

The author's name is Śrīkaṇṭhapaṇḍita (10.122). Variants are Śrīkaṇṭhasūri,[1177] Śrīkaṇṭhaśambhu,[1178] Śrīkaṇṭhaśivapaṇḍita,[1179] and Śivapaṇḍita.[1180] He was a Jain monk, as is apparent from the maṅgala, addressed to Ṛṣabha, and a number of references to Jainism.[1181] He is called a paramajainācārya,[1182] and resided in

Siddhapura[1183] and Dhūlegāṃv.[1184] Other medical works of his hand are *Bhiṣagbhūṣaṇa* and *Yogapradīpa*.[1185] He is probably different from the author of the *Yogaratnāvalī*, who was a Hindu.[1186]

Śrīkaṇṭhasūri is said to have lived in the period A.D. 1445–1545.[1187] Quotations from the *Hitopadeśa* are found in some works from the eighteenth century. One of the MSS dates from 1734/35.[1188]

ŚRĪKṚṢṆARĀYA: *Siddhayogasamuccaya*.[1189]
ŚRĪNĀTHA, son of Ghāsīrāma: *Jagatprakāśa*.[1190]
ŚRĪNIDHI: *Bhāvasāra*.[1191]

ŚRĪNIVĀSA was the author of the *Cikitsātilaka*,[1192] a comprehensive textbook of medicine, based on Vāgbhaṭa's *Aṣṭāṅgahṛdayasaṃhitā*.

The work[1193] consists of 130 chapters (adhyāya), arranged in five sections: sūtra- (forty chapters), śārīra- (ten chapters), nidāna- (sixteen chapters), cikitsita- (twenty-four chapters), and uttarasthāna (forty chapters). The subjects of all the chapters are enumerated in a table of contents at the beginning of the work (1.27–43ab). This table shows that the author modelled his work on the *Aṣṭāṅgahṛdayasaṃhitā*.

The sūtrasthāna, which will be discussed below, has ten chapters more than the parallel section of Vāgbhaṭa's work. The śārīrasthāna has four chapters more; three of these have been added: saṃbhogasādhana (chapter one), garbhanipīḍana (chapter three), and vandhyāvijñāna (chapter four), while Vāgbhaṭa's chapter six was divided into two, one on dreams (chapter nine), the other on messengers (chapter ten). The order of the chapters of the nidānasthāna agrees exactly with that of Vāgbhaṭa's work, and the same applies to the uttarasthāna. The cikitsitasthāna has two extra chapters at its beginning: (1) ruṅnivṛtti, (2) pathyakrama.

More details are available only on the sūtrasthāna, since the remaining sections have not been preserved.[1194]

This sūtrasthāna is a re-arrangement of the matter contained in the same section of Vāgbhaṭa's work, with a number of additions. The order of Vāgbhaṭa's chapters one to fourteen was changed, and four chapters (four to six and nine) were added, although their contents are not new, being borrowed from the *Aṣṭāṅgahṛdaya*. The sequence of the remaining chapters is basically the same in both sūtrasthānas. The *Cikitsātilaka*, however, has six chapters more (twenty-three to twenty-five and twenty-seven to twenty-nine), the contents of which, as well as their titles, are closely related to the six chapters of Vāgbhaṭa's kalpasthāna. The advantage of the incorporation of the kalpasthāna at an appropriate place in the sūtrasthāna is that all the aspects of pañcakarman are dealt with together, and not scattered over two sthānas.

Although Śrīnivāsa does not mention Vāgbhaṭa as his main source,[1195] by far the greater part of the sūtrasthāna of the *Cikitsātilaka* is a slightly shortened and re-arranged version of that of Vāgbhaṭa's work. New material is sparsely represented. It is found in an appendix (pariśiṣṭa) of 187 verses, added to chapters twelve and thirteen on dina- and ṛtucaryā, and concerned with betel chewing, fragrant substances, articles of clothing, etc., making it thus resemble Bhoja's *Cārucaryā*.[1196] Some new

verses occur in chapter fifteen (on liquids); chapter sixteen (on articles of food and drugs) has an udyānavarga of forty verses on horticulture inserted.[1197]

The *Cikitsātilaka* is not quoted in later works.

The name of the author is Śrīnivāsa or Aijaśrīnivāsa, of Kauśikagotra and Ārvela family, son of Raghunāthārya, grandson of Aijanāgārya.[1198] He was a pupil of Paddanārya, with whom he studied the *Āyurvedakalānidhi*,[1199] and a devotee of Dattātreya.[1200]

The details of Śrīnivāsa's genealogy point to a southern origin.[1201] P. Hymavathi regards Iyija[1202] as Śrīnivāsa's native place. Iyija is situated in the border area of Āndhra Pradeś and Karṇāṭaka, in the present Mahbubnagar district.[1203]

There are no clues pointing with any certainty to Śrīnivāsa's date. A. Rahman, who also ascribes the *Ṣaḍrasanighaṇṭu* to him, regards him as anterior to the fourteenth century. P. Hymavathi, pointing to Telugu and Kannaḍa words used by Śrīnivāsa, is of the opinion that he lived during the period of the Vijayanagar kingdom, when Telugu, Kannaḍa and Tamiḻ speaking regions were united. The fact that the author was a Vaiṣṇava and devotee of Dattātreya is adduced by him as an additional argument. Claiming that the *Cikitsātilaka* quotes a verse from the *Bhāvaprakāśa*[1204] and does not yet contain new substances found in the *Yogaratnākara*, he concludes that Śrīnivāsa must have lived between the last quarter of the sixteenth and the first quarter of the seventeenth century.[1205]

ŚRĪNIVĀSA: *Vaidyaśāstradīpikā.*[1206]

SUBRAHMAṆYA: *Bāhaṭagrantha*, a treatise in nine chapters (pariccheda), dealing with the following subjects: nidānayoga, kaṣāyayoga, pathyāpathyayoga, tailayoga, ghṛtayoga, lehyavargasamāpti, cūrṇavaṭakayoga, auṣadhayoga, and rasayoga. The beginning of chapter one refers to aṣṭasthānaparīkṣā. The *Siddhasāra* is mentioned as a source.[1207]

Some suppose that the *Bāhaṭagrantha* was written by a Bāhaṭācārya, who was also the author of the *Aṣṭāṅganighaṇṭu*; this Bāhaṭa is regarded as having lived during the last quarter of the thirteenth and the first quarter of the fourteenth century, since references to and quotations from his *Bāhaṭa* are found in the works of other scholars from the middle of the fourteenth century onwards.[1208]

Formulae from the *Vāhaṭa* are found in the *Rasayogasāgara.*[1209]

The date of the *Bāhaṭagrantha* is important because it mentions aṣṭasthānaparīkṣā, a procedure also found in Cāmuṇḍa's works.[1210]

The Telugu medical author Somaya relates that he began composing his *Bhiṣagvarāñjana* after studying the *Bāhaṭagrantha.*[1211] Muḍumbi Veṅkaṭācārya, who translated the *Rasapradīpikā* into Telugu,[1212] paid obeisance to Bāhaṭa. The author who translated Trimalla's *Śataślokī* into Telugu refers to Trimalla as someone well versed in bāhaṭaśāstra. The physician described in the Telugu work called *Paramayogīvilāsamu*, written by Tiruveṅgalanātha, holds the *Bāhaṭapustakamu* in his hand.[1213]

The *Bāhaṭagrantha* was translated into Telugu verse by Elakūci Bālasarasvatī, who lived in the first quarter of the seventeenth century according to P. Hymavathi.[1214] B. Rama Rao,[1215] who discussed this subject earlier, was more careful and stated that the *Bāhaṭamu* of Bālasarasvatī may be either the *Bāhaṭagrantha* or another work of the same title, which is a Telugu translation of the *Aṣṭāṅgahṛdaya*, made, or at least completed by, Liṅgayārya, the pupil of Bālasarasvatī.

Bālasarasvatī lived at the court of Veṅkaṭādri of Paritāla on the banks of the river Kṛṣṇā, during the last part of the sixteenth century, according to B. Rama Rao.

SUKHALATA: *Āyurveda.*[1216]
ŚUKADEVA: *Vaidyakalpadruma.*[1217]
SUKHĀNANDA: *Sukhānandavinoda.*[1218]
ŚUKRĀCĀRYA: *Ulūkakalpa.*[1219]
SUNDARA: *Indudīpikā.*[1220]

SUNDARADEVA, son of Govindadeva, pupil of Viśvarūpatīrtha, was the author of several treatises.

(1) *Bhūpālavallabha* or *Bhūpacaryā*,[1221] a work on dietetics and pathology. The author seems merely to repeat the precepts of predecessors, frequently interlarding his text with paraphrases and comments. Vāgbhaṭa is occasionally referred to for further details on a particular subject. The work begins with the statement that the rules of conduct to be observed during the six seasons will be dealt with. The first chapter is about the rainy season. It contains a, possibly later inserted, section on wrestling and the training of wrestlers, written in the form of a conversation between Kṛṣṇa and Someśvara. This section, called mallavidyā, has been taken from the *Mallapurāṇa.*[1222]

(2) *Cikitsāsundara*;[1223] (3) *Līlāvatī*, a short treatise on hygiene and dietetics;[1224] (4) *Yogoktivivekacandra*;[1225] (5) *Yogoktyupadeśāmṛta.*[1226]

Sundaradeva may well be the son of the Govindadeva who wrote the *Yogoktilīlāvatī.*[1227]

SURAJIT: *Laghunidāna.*[1228]

SUṢEṆA[1229] was the author of the *Āyurvedamahodadhi* or *Annapānavidhi*.[1230] The possibility cannot be excluded that the *Annapānavidhi* formed part of a larger *Āyurvedamahodadhi.*[1231]

The work of Suṣeṇa[1232] is concerned with dietetics and describes the medicinal properties of foods and drinks, adding the therapeutic effects of physical exercise, rubbing of the feet, chewing betel, and wearing various kinds of clothes.[1233] It contains 634 verses in various metres and is divided into a long series of vargas, devoted to water, dairy produce, oils, prepared foods, fruits, etc. P.V. Sharma supposes it to have been written by a royal physician for use by the king.[1234]

There are no commentaries on this text, though Dāmodara's *Ārogyacintāmaṇi* has erroneously been regarded as such.[1235]

Apart from the *Āyurvedamahodadhi*, some more treatises may have been written by Suṣeṇa; other works recorded by Th. Aufrecht are: *Guṇāguṇī*, *Śārīraka*, and *Vṛ-*

ttamāṇikyamālā.[1236] No information on these works is available.

Suṣeṇa is quoted or referred to in the *Bṛhadrasarājasundara*, the *Haṃsarājanidāna*, the *Paraśurāmapratāpa*,[1237] Raghunātha's *Bhojanakutūhala*, the *Śāligrāmanighaṇṭubhūṣaṇa*, Ṭoḍara's *Āyurvedasaukhya*, and Vācaka Dīpacandra's *Laṅghanapathyanirṇaya.*

Worthy of mention is the description of fruits like amṛtaphala (kṛtānnavarga 6), piṇḍakharjūra (phalavarga 39), sindola or sindīphala (phalavarga 40), sirākośātakī (phalavarga 46), suvarṇakadalī (phalavarga 41), and utatī (phalavarga 42),[1238] vegetables like rājavallī (śākavarga 12), sindhaṇī (śākavarga 38), and vārikaśeru (śākavarga 31), and dishes like various kinds of śikhariṇī (śikhariṇīvarga).

P.V. Sharma mentions a MS of a work by Suṣeṇa, probably the *Annapānavidhi*, in which opium, mica, etc., are described.[1239]

Information on Suṣeṇa as a medical author is not available. Suṣeṇa is known from the *Rāmāyaṇa* as a physician in the army of Rāma, who treated Lakṣmaṇa and could bring the dead to life.[1240] The *Devīpurāṇa*[1241] has recorded a Suṣeṇa in a list of sages versed in medicine. Suṣeṇa is also the name of a physician mentioned in Bāṇa's *Harṣacarita.*[1242]

A recipe, called siṃhaṇacūrṇa, is found at the end of one of the MSS of the *Annapānavidhi.*[1243] If Siṃhaṇa, after whom the formula is called, is identical with the Yādava king of this name (1210–1247),[1244] during whose life Keśava was active, Suṣeṇa is posterior to the first half of the thirteenth century. A terminus ante quem is provided by the *Paraśurāmapratāpa* (first half sixteenth century), which gives a long extract from Suṣeṇa's work,[1245] and Ṭoḍara's *Āyurvedasaukhya* (sixteenth century), which quotes him. The earliest MS known is dated A.D. 1622.[1246] P.V. Sharma's claims that Suṣeṇa is quoted in the *Madanapālanighaṇṭu* (A.D. 1375) and the *Kaiyadevanighaṇṭu* (first half of the fifteenth century). Confirmation of this claim would mean that Suṣeṇa may belong to about A.D. 1350.

SVĀMIKUMĀRA: *Vaidyaśāstra*, a work in verse, with explanations in prose.[1247]

ŚYĀMADĀSA: *Paribhāṣāsaṃgraha.*[1248] Some of the subjects dealt with in this work are: mānaparibhāṣā, doṣabalābala, auṣadhamānādividhāna, anupānavidhi, tuvarakavṛkṣalakṣaṇa, tajjanmasthānanirūpaṇa, ārdradravyamātrā, śuṣkadravyamātrā, snehapāka, pāradaśodhana, kalkamātrā, and kṣīrapāka.[1249]

ŚYĀMADATTA: *Yogeśvara.*[1250]
ŚYĀMALĀLA: *Sadyogaratnāvalī.*[1251]

TELKURĀYA, son of Śiṅgayadeśika of Pulpāka family: *Nidānayogaratnāvalī*,[1252] a work on the diagnosis and treatment of various diseases. The author distinguishes, as usual, four types of ajīrṇa, but calls them dhūma, vidhūma, vispaṣṭa, and rasaśeṣa. Opium (ahiphena) is prescribed against diarrhoea and grahaṇī.[1253]

Some scholars are, on the basis of internal evidence, of the opinion that this work dates from about A.D. 1600.[1254]

TIMMARĀJAKAVI: *Vaidyajīvana.*[1255]
TIRMALĀRYA: *Śāstradīpikā* or *Śāstrādarśa.*[1256]
TIRUVEṄKAYYAPPA: *Śāstrādarśa.*[1257]
TRIPALLĪBHAṬṬA: *Taraṅgiṇī.*[1258]
TRIPURĀRI: *Rukpratikriyā.*[1259]
TRIPURĀRIN: *Cikitsāsārasaṃgraha.*[1260]
TRYAMBAKA: *Tryambakacikitsā.*[1261]

TULASĪDĀSA, son of Vaidya Śrīraṅga of Mūdhaḍāgotra, a resident of Nāgpur: *(Vaidyaka)yogasārasaṃgraha*,[1262] a short metrical treatise in four chapters: vaidyaguṇāguṇa, bheṣajākhyānaṣaṭkṛtināḍīmūtramalaparīkṣā, rogagaṇanā, and bheṣajaparikrama.

Sources mentioned are Caraka, Hārīta, Suśruta, Vāgbhaṭa, and *Vaidyasāraka.*[1263]

TUḶḶŪRU ŚARABHARĀJU: *Śarabharājīya.* This work, written in Telugu and influenced by the *Basavarājīya*, may date from the seventeenth century.[1264] Tuḷḷūru's son, Mādhava, completed the treatise left incomplete by his father and wrote a medical work in Sanskrit, called *Gadāsaṃjīvanī.*

UDAYAṂKARA: *Sārakalikā.*[1265]
UDAYARUCI: *Vaidyavallabha.*[1266]

UDDHAVAMIŚRA, son of Himakara: *Vaidyapradīpa*, a work on all the aspects of medicine.[1267]

UPĀDHYĀYA of the Sārasvatakula: *Cikitsājñāna.*[1268]

UPENDRAMIŚRA: *Bhaiṣajyarasāmṛtasaṃhitā.*[1269] This work is one of the sources of the *Rasayogasāgara.*

URAGENDRA BHŪPĀLA: *Parimalapārijāta.*[1270]
VĀDHŪLA RĀMĀNUJA: *Āyurvedadharmaśāstra.*[1271]
VĀGBHAṬA ĀTREYIN: *Kvāthaśataka.*[1272]
VAIDYANĀTHA: *Kalyāṇaguṇaratnākara.*[1273]
VAIDYANĀTHA: *Nirṇayanighaṇṭu.*[1274]
VALLABHADEVA: *Yogamuktāvalī.*[1275]

VALLABHENDRA or VALLABHĀCĀRYA or INDRAKAṆṬHAVALLABHĀCĀRYA was the author of the *Vaidyacintāmaṇi.*[1276]

The *Vaidyacintāmaṇi*[1277] is divided into chapters called vilāsa or prakaraṇa.[1278]

Edition d gives the text of the first 137 verses, which, after a maṅgala and two stanzas on the author, deal with the following subjects: the contents of the work: nidāna, lakṣaṇa, rasayogāḥ, kaṣāyakāḥ (4); aṣṭasthānaparīkṣā: nāḍī-, sparśana-, svarūpa-, śabda-, netra-, purīṣa-, mūtra-, and jihvāparīkṣā (6–28); ajīrṇa (29–31);[1279] fever caused by one or two doṣas (32–51); bhūtajvara (52–53); ajīrṇajvara (54–55);

abhighātajvara (56–57); aihikajvara (58–63); dvyāhikajvara (64–65); tryāhikajvara (66–67); cāturthika (68–70); pañcāhikajvara (71–72); pakṣāntajvara (73–74); māsāntajvara (75–76); varṣāntajvara (77–78); sarvakālajvara (79–80); asthigatajvara (81); raktagatajvara (82); māṃsagatajvara (83); saṃnipātajvara (84–89);[1280] tāntrikajvara (90–92); the formula of bhūtabhairavarasa (93–95); a list of eighty vāta diseases (96–105);[1281] the symptoms of some of these disorders: pakṣaghāta, pārśvavāta, kampavāta, ūruvāta, sandhivāta, and kikkānila (106–112); the symptoms of kṣīṇavāta (113), dhūmākhyavāta (114), rasavāta (115), and dhanurvāta (116); the influence of the nakṣatras on diseases (117–123); recipes against fevers and some other diseases (124–129); karmavipāka (130–135); a recipe (136–137).

Sources mentioned in the introduction are Caraka, Suśruta and *Cakradatta*.[1282]

Ed. e, which is complete, is divided into twenty-six vilāsas, mostly subdivided into prakaraṇas (chapters).[1283]

Chapter one deals with aṣṭasthānaparīkṣā (1–4).[1284] The maṅgala is addressed to Śrīnātha, Pārvatīnātha, Vāṇīnātha, Sarasvatī, Durgā, Vaṭuka,[1285] and Heramba.

Chapter two deals with: the five elements of rogavijñāna (knowledge concerning diseases): nidāna, pūrvarūpa, rūpa, upaśaya and saṃprāpti (5–6); interactions between diseases (6); a maṅgala to Śiva (6); four fevers are brought about by de gods: jvara, mahājvara, raudrajvara and vaiṣṇavajvara (7); patients suffering from these fevers should recite the names of Rudra, Mahārudra, Mahārudra again, and the two Mahārudras respectively (7); śītajvara as a result of karman (7); the religious treatment of śītajvara (7); eight measures able to cure fever: vedaśravaṇa (Veda study), hitacaraṇa (good conduct), viprasaṃtarpaṇa (feeding brāhmaṇas), kṛṣṇasmaraṇa (mental recitation of the name of Kṛṣṇa), śubhakaraṇa (auspicious actions), dravyaviśrāṇana (the bestowal of gifts), aśvatthabhramaṇa (the circumambulation of an aśvattha tree), suratnadharaṇa (the wearing of auspicious gems), and dīnasaṃrakṣaṇa (protection of the distressed) (7); recitation of the names of a number of deities and paying homage to several deities are to be recommended (7); astrological influences and their warding off (7); the onset, prodromes, mythical origin, and varieties of fever (7–8); the characteristics of fever due to vāta, pitta, and kapha (8); the characteristics of fever due to vāta and pitta, vāta and kapha, kapha and vāta, pitta and kapha, kapha and pitta (9);[1286] the characteristics of ajīrṇajvara, abhighātajvara (9), bhūtajvara, āhikajvara (10); the varieties of āhikajvara: aikāhika, dvyāhika, tryāhika, caturthaka, pañcāhika, ārdhapakṣa, pākṣika, and māsika;[1287] these fevers are caused by the three doṣas (10); another series: saṃtata, satata, anyedyuṣka, tṛtīyaka, caturthaka, and cāturthikaviparyaya (10); fevers reaching the seven dhātus; three days are required for going from one dhātu to the next one (10); the characteristics of the seven fevers staying in rasa, rakta, etc. (10–11);[1288] the characteristics of viṣamajvara, mūrchājvara, śītajvara (11), doṣahetukajvara, antardāhajvara, viṣamaśītalajvara, āmajvara (12); the eight varieties of āgantukajvara (12): grahāveśajvara, auṣadhajvara, viṣajajvara, jvara caused by bhaya (or bhī), śoka, kopa (or krodha), kāma, and abhicāra (12–13);[1289] factors causative of fever; things to be avoided; unwholesome things; the characteristics of strīsaṅgamadoṣa; the characteristics of viṣamadoṣa and viṣamaśītadoṣa (13), raktajihvaka-, pītajihvaka-, kṛṣṇajihvaka- and śvetajihvakadoṣa (13–14); these seven doṣas may continue for seven days or a fortnight; rules for the regimen to be kept on each of the first nine days of a fever; the number of days a fever will take for reaching pāka, dependent on the doṣa(s) involved (14); rules regarding treatment during the early stage (14–15); a second series of characteristics of fever due to vāta, pitta, kapha (15), vāta and pitta (15–16), vāta and kapha, pitta and kapha, and vāta, pitta and kapha, together with their treatment (16); a second series of characteristics of bhūtāveśajvara and abhicārajvara, together with their treatment; the characteristics and treatment of daivaprakopajvara (17); the characteristics and treatment of bhītijvara (17–18), piśācajvara, gandharvajvara (18), tāndrikajvara, mūrchājvara, pralāpajvara (19), śītalajvara (19–20), svedajvara, kṛmijvara (20), haridrājvara (20–21), kāmajvara, prātaḥkālajvara, madhyāhnajvara (21), sāyaṃkālajvara (21–22), niśājvara, śoṣajvara, vraṇajvara (22), ātapajvara (22–23), svarahīnajvara, abhighātajvara (23), āmajvara (23–24), agnimāndyajvara, vamanajvara, hidhmājvara (24), hikkājvara, anidrājvara, kāsajvara, rasagatajvara (25), raktagatajvara, māṃsagatajvara, medogatajvara, asthigatajvara (26), majjāgatajvara, śuklagatajvara,[1290] piṭakājvara (27), sphoṭakajvara, kampajvara, śophajvara (28), ānāhajvara (28–29), trikālajvara, saṃnipātajvara, purāṇajvara (29), śuṣkajvara, aikāhikajvara, dvyāhikajvara, tryāhikajvara (30), caturthikajvara, pañcāhikajvara, pakṣāntajvara, māsāntajvara (31),[1291] and varṣāntikajvara (32).

The next section of chapter two[1292] deals with āyurvedic preparations and rasayogas against fevers (32–54).

Chapter three[1293] deals with saṃnipāta fevers: the characteristics of saṃnipātajvara in general; the varieties to be distinguished; the symptoms of saṃnipātajvara with a predominance of vāta, pitta, kapha, vāta and pitta, vāta and kapha, pitta and kapha (55); the symptoms of six saṃnipāta fevers in which one doṣa is most, one moderately and one least excited; another classification of these fevers with thirteen varieties, seven of which are incurable; the symptoms of each of these fevers; two sets of symptoms of sandhika (56), antaka (56–57), hṛddāha, cittavibhrama, śītāṅga (57), tāndrika (57–58), kaṇṭhakubja; the symptoms of karṇika; the variety of karṇika called karṇamūlaśotha; two sets of symptoms of bhugnanetra; the symptoms of raktoṣṭha (58) and raktaṣṭhīvin; two sets of symptoms of pralāpa, jihvaka, and abhinyāsa; the six curable varieties (59); the seven incurable varieties (59–60); the time limit of each of the fevers; the characteristics of dhātupāka and malapāka (60).

The section on treatment (60–74) deals with āyurvedic preparations and rasayogas against saṃnipāta fevers.

Chapter four[1294] deals with: a maṅgala; the attendants (parivāra) of kṣaya as the king of the diseases; karmavipāka relating to kṣaya (75); prāyaścitta; astrological considerations; śānti measures; the four causes of the disease called yakṣman;[1295] the saṃprāpti of rājayakṣman,[1296] its prodromes (76);[1297] the symptoms of yakṣman due to vāta, pitta, kapha, vāta and pitta, vāta and kapha, pitta and kapha, saṃnipāta, and blood; the main symptoms of rājayakṣman;[1298] the eleven, six or three main symptoms (77);[1299] signs indicating curability or incurability;[1300] the varieties of śoṣa; the characteristics of śoṣa caused by sexual intercourse, grief, old age, travelling (78), physical exercise (78–79), and injuries;[1301] the causes and symptoms

of uraḥkṣata;[1302] signs indicating its incurability;[1303] cases of śoṣa amenable to treatment or unsuitable to it (79);[1304] a mythical tale about kṣayaroga in the form of a dialogue between Pārvatī and Śiva (79–80); śānti measures (80–81); details concerning the appearance of kṣaya in successive births (81); characteristics of kṣaya in general; the characteristics of raktakṣaya, rājayakṣman, saṃtāpakṣaya (82), mūrchākṣaya, śoṣakṣaya, vamanakṣaya, grahaṇīkṣaya, śophakṣaya (83), śuṣkakṣaya, atisārakṣaya, mandāgnikṣaya, pāṇḍukṣaya (84), śūlakṣaya (84–85), kaphakṣaya, kāsakṣaya, śvāsakṣaya (85), tandrākṣaya (85–86), hidhmākṣaya, and haridrākṣaya (86).

The section on treatment (86–108) describes āyurvedic preparations and rasayogas.

Chapters five to nine deal with a number of diseases and their treatment. The descriptions of the diseases largely agree with the *Mādhavanidāna*. Verses on karmavipāka are added. Chapter five is about pāṇḍuroga. Chapter six, on kāmilā and related disorders, adds that the image of the deity Kāmilā should be honoured (124). Additional subjects of chapter seven, devoted to śopha, are the characteristics and treatment of this disorder when caused by kṛtrimaviṣa, and the characteristics and treatment of pāṣāṇadoṣaśopha (132), vraṇaśopha, jvaraśopha, khaḍgaghātaśopha (133), kāmilāśopha, sarpadaṣṭaśopha, and gandhakaśopha (134). Chapter eight, on atisāra and pravāhikā, adds a description of bhasrātisāra (139–140). Chapter nine, on grahaṇī, adds the characteristics of ghaṭīyantragrahaṇī (155).

Chapter ten,[1305] on vātavyādhi, begins with: a maṅgala; karmavipāka relating to vātavyādhi; general śānti measures; śānti of dhanurvāta, pakṣavāta (168), raktavāta, vātarakta, vātapitta; causes of vātavyādhi according to astrology; the importance of vāta (169).

The part that follows, up to the description of khallī (169–177), has largely been taken from the *Mādhavanidāna*.[1306] Some additional verses describe the organs forming part of the koṣṭha, the location of the āmāśaya (170), jṛmbhāvāta, pralāpavāta, rasājñāna, tvakśūnyatā (171), four varieties of ākṣepaka, due to vāta, pitta, kapha and a trauma (172), and the varieties of ardita due to vāta, pitta and kapha (174). The characteristics of tūnī and pratitūnī are absent.[1307]

The section that follows is concerned with the symptoms of dhūmavāta, vidhūmavāta, śuṣkāṅgavāta, kaphavāta, jihvāṅgavāta, skandhavāta, kandharavāta, pādavāta, madhuvāta (177), bastivāta, kṣutavāta, śṛṅkhalāvāta, visphoṭavāta, snāyuvāta, gṛdhravāta, pāṃśuvāta, skhalanavāta, śukravāta, sūtikāvāta, tvagvāta (178), bhogavāta, kikkasavāta, kaṭivāta, malabaddhavāta, mūtrabaddhavāta, ūruvāta, suptivāta, kampavāta, bāhukampa (179), śītavāta, sirāvāta, netravāta, nāsāvāta, mukhavāta, udaravāta, kukṣivāta, ajīrṇavāta, amlavāta, anulomavāta, vilomavāta (180), dhanurvāta, pakṣaghāta, ardhāṅgavāta, pārśvavāta, ātapavāta, agnivāta, āḍhyavāta, pāṇḍuvāta, svedavāta (181), sandhivāta, sādhyavāta, śirovāta, svarahīnavāta, raktavāta, kṣīṇavāta, khañjāvāta, kalāvāta, sarvāṅgavāta, styānavāta, gulphavāta (182), aṅgulīvāta, jānuvāta, jaṅghāvāta, asthivāta, kākavāta, bhramaṇavāta, paṅguvāta, daṇḍavāta, mandavāta, koṣṭhavāta (183), gulmavāta, majjāvāta, kṣatavāta, vasāvāta, aṇuvāta, dadhivāta, karṇavāta, ūrdhvavāta, āmavāta, badhiravāta, and unmādavāta (184).

Chapter eleven,[1308] on raktapitta, presents no unusual features.

Chapter twelve[1309] deals with: a list of the twenty-four pittarogas; the symptoms of these disorders: āvarṇapaittya, vivarṇapaittya, sūryāvartapaittya, kāmilāpaittya (230), amlapitta (230–231; three different versions), raktapaittya, svedapaittya, unmādapaittya, puṇḍarīkapaittya, bhujaṅgapaittya, karapādapaittya, śītapaittya (231), mūrchāpaittya (231–232), mādhuryapaittya, kusumapaittya, krodhapaittya, bhraṃśapitta, śiraḥpaittya, kṣudhāpaittya, tṛṣṇāpaittya, durbhāṣāpaittya, carmapitta, durgandhapitta, and mādanapitta (232).

Chapter thirteen,[1310] concerned with arocaka, presents no unusual features.

Chapter fourteen,[1311] dealing with kāsa, enumerates and describes the twenty kapharogas: pūrvakāsa, kṣayakāsa, raktakāsa, cippikā(kāsa), vātakāsa, pittakāsa, kṣatakāsa, śuktikā(kāsa), āmakāsa, pāṇḍukāsa, kṛṣṇakāsa, śleṣmakāsa, dadhikāsa, śleṣmajihvaka, kaṇṭhajihva, upajihva, jihvakakāsa, ūrdhvakāsa, śleṣmabhaṅga, and śleṣmakuṣṭhaka (248); it lists the symptoms of twenty varieties of kāsa, which are the same as the twenty kaphavikāras (249–251).

Chapters fifteen to seventeen,[1312] dealing with śvāsa, hikkā, and svarabheda, present no unusual features.

Chapter eighteen[1313] deals with prameha and the pramehapiṭikās (285–289). Subjects added are: the reason why prameha does not occur in women; the characteristics of bahumūtra; the ten kinds of piṭikā, which develop in prameha when neglected, are said to occur in sandhis, marmans and fleshy parts (288); complications of the piṭikās; the fourteen marmans are found between the brows, on the crown of the head, at the throat, at the śiraḥsthala, in the region of the heart, at the navel, the eyes, testicles, ankles, buttocks, hips, big toes, forefingers, and roots of the arms; the examination of the urine of prameha patients and signs of prognostic significance (289).

Chapter nineteen,[1314] concerned with mūtrakṛcchra, adds a purīṣaja type (301). Chapter twenty,[1315] on mūtrāghāta, adds a second set of symptoms of vātakuṇḍalikā (307).

Chapters twenty-one (on aśmarī), twenty-two (on śūla), twenty-three (on udāvarta and ānāha), twenty-four (on gulma), twenty-five (on hṛdroga), twenty-six (on udara), twenty-seven (on vṛddhi and vardhma), and twenty-eight (on medoroga),[1316] present no unusual features.

Chapter twenty-nine,[1317] dealing with vātarakta, adds verses on pittarakta and kapharakta (371).

Chapters thirty (on ūrustambha), thirty-one (on āmavāta), thirty-two (on śītapitta, udarda, koṭha), and thirty-three (on amlapitta),[1318] present no unusual features.

Chapter thirty-four[1319] deals with agnimāndya, bhasmaka, ajīrṇa, viṣūcī, alasaka, daṇḍālasaka, and vilambikā (399–402), mainly on the lines of the *Mādhavanidāna*. Added are verses on bhasmaka (399–401), vātājīrṇa and kaphājīrṇa (400–401). The verses on viṣūcī differ from those of the *Mādhavanidāna* and describe its general symptoms, those of the types due to vāta and kapha, the disorder called pārṣṇidāha, which occurs in very serious cases of viṣūcī, the complications of viṣūcī, and signs pointing to incurability (401). Some more extra verses are about daṇḍālasaka (402).

Chapters thirty-five (on arśas), thirty-six (on kṛmiroga),[1320] thirty-seven (on tṛṣṇā), thirty-eight (on dāha), and thirty-nine (on mūrchā, tandrā, klama, nidrā, saṃnyāsa) do

not contain interesting additional material.

Chapter forty deals with madātyaya (437–438). Its verses are taken from the *Mādhavanidāna*, but a number of stanzas found in that treatise are omitted.[1321] A verse on the proper amount to be drunk for rasāyana purposes is added (438).

Chapters forty-one (on unmāda) and forty-two (on apasmāra) are devoid of noteworthy features.

Chapter forty-three[1322] deals with kuṣṭha. Added verses are about vipādikā and vicarcikā (451–452), kacchūkuṣṭha, galatkuṣṭha, śvitra (452), prasūtikuṣṭha, curable and incurable types of kuṣṭha (453), incurable types of kilāsa and other forms of kuṣṭha (454), and the incurability of śvetakuṣṭha and śvitra (455).

Chapters forty-four (on visarpa) and forty-five (on visphoṭaka) present nothing unusual.

Chapter forty-six deals with masūrikā. Additional verses are about the pathogenesis of the disease and the explanation of its name (480–481), the complications, the variety called śītaiā, the characteristics of bṛhatī śītalā and kodrava(masūrikā), and the varying degrees of curability of the disease (483). The section on treatment (483–487), of an āyurvedic type and not containing rasas, also describes the religious treatment of the disease and refers to the *Śītalāstotra* (485).

Chapter forty-seven (on galagaṇḍa) presents nothing unusual.

Chapter forty-eight, on gaṇḍamālā, presents a list of four varieties of this disorder, said to be caused by parasites (kṛmi) and located in the cardiac region, neck, cheeks (kapola) and head (uttamāṅga); it also lists four vraṇas, found in the regions of the teeth, hips, ears, and shoulders (aṃsagaṇḍaka) respectively; the characteristics of gaṇḍamālā occurring on the scalp (kapāla) are described.

Chapters forty-nine (on granthi), fifty (on arbuda), and fifty-one (on ślīpada) do not give additional material.

Chapter fifty-two, dealing with vidradhi, adds verses on stanavidradhi (500).

Chapters fifty-three (on vraṇa), fifty-four (on agnidagdha), fifty-five (on āgantukavraṇa), fifty-six (on nāḍīvraṇa), and fifty-seven (on bhagandara) present no unusual features.

Chapter fifty-eight deals with upadaṃśa. Additional verses describe the five varieties of upadaṃśa and their chief symptoms (523). Extra verses give details about liṅgavartis, which are found in both males and females, about their locations, their forms, and the symptoms they bring about (524).[1323]

Chapter fifty-nine deals with śūkadoṣa.

Chapter sixty[1324] deals with the kṣudrarogas. Additional verses are about: the kulīra type of kunakha (532); the varieties of palita: due to vāta, pitta, kapha, saṃnipāta, and old age; the treatment of valī and palita by the administration of the drug called candrodaya; the type of baldness (keśanāśa) caused by parasites and its treatment with jayantikā (533); vaktradurgandha, pulipirī (also called kaṭipiṭikā: 543), and chāyāroga (535). Gudabhraṃśa is omitted.

Chapter sixty-one[1325] deals with the pathogenesis and symptoms of snāyuroga, which is of five types: associated with vāta, pitta, kapha, blood, or all the doṣas (543–544).

Chapter sixty-two deals with mukharogas. Additional stanzas are about: the numbers of the groups of mukharoga, making a total of sixty-four; an enumeration of the eight oṣṭharogas (546) and sixteen dantaveṣṭarogas (= dantamūlarogas) (547); hanumokṣa; an enumeration of the five jihvārogas (548).

Chapter sixty-three deals with karṇarogas. Additional verses give an enumeration of the twenty-eight karṇarogas (558), the characteristics of karṇāntarvraṇa, and the lethal complications of karṇaśūla (561).

Chapter sixty-four deals with nāsārogas. Additional verses are about: the aetiology of nāsāroga; an enumeration of the thirty-four nāsārogas (564); the aetiology of pīnasa; the seven varieties of pīnasa: red, yellow, white, dark-blue, hāridra, of a mixed colour, and bad-smelling (565); nāsārśas (567).

Chapter sixty-five deals with śirorogas. Additional verses are concerned with the aetiology of the group of eleven śirorogas (573).

Chapter sixty-six[1326] deals with netrarogas. Additional verses are about: the general pathogenesis of netrarogas; the numbers of the groups of netrarogas; their total number is ninety-four (581).

Chapter sixty-seven,[1327] a very long one, deals with the processing of inorganic substances, their medicinal properties and their uses.

Its subjects are: the seven metals; the purification of gold, the preparation of its bhasman, the medicinal properties, rules for the use of gold preparations, the bad effects of unpurified gold (602–603); the origin of silver, its names, its purification, etc. (604–605); copper, its origin, etc. (605–607); tin (607–609); lead (609–610); iron and maṇḍūra (611–616); kāṃsya (616); pittala (616–617); the origin of mercury; its varieties (617); its praise (617–618); its names; the bad effects of looking down upon it (618); two versions of the eight doṣas and the disorders they may bring about (618–619); the seven kañcukas and the disorders they may cause; the effects of purified and unpurified mercury (619); the purification of mercury and the eight saṃskāras (619–623); the preparation of a bhasman (623–624); the extraction of mercury from cinnabar (624); the preparation of rasasindūra and rules regarding its use (625); rules for the use of a bhasman (625–627); rasājīrṇa and its treatment; rasatāpa and its treatment (627); wholesome and unwholesome things during the use of mercurial preparations (627–628); sulphur, its origin, purification, etc. (628–630); mica (abhraka), its origin, purification, etc. (630–633); haritāla (633–635); añjana (635); kāsīsa (635–636); gairika (636); hiṅgula (636–637); manaḥśilā (637); the purification of śaṅkha (637); the colours of various bhasmans (637); rules regarding the use of bhasmans; substances for the killing of the metals; the disorders arising from the use of unpurified metals; the seven upadhātus and their origin (638): svarṇa- and tāmramākṣika (638–640), tuttha, rasaka, kaṅkuṣṭha, sindūra (640), ākhupāṣāṇa, raktapāṣāṇa (641); śilājatu (641–642); the eight sādhāraṇarasas: kampilla, lavaṇa, gaurīpāṣāṇa, navasāgara, darada, vahnijāra, girisindūra, and muddāraśṛṅga; kampilla; bola; mastakī (642); kapharī; sarjakṣāra; yavakṣāra; the five salts (643); the purification of trikaṭuka, vāraṇapippalī (= gajapippalī), aphena (opium), rāmaṭha (= hiṅgu), the two kinds of jīra, eraṇḍabīja and dantibīja, viṣamuṣṭi, nepāla, and viṣa (= vatsanābha) (644); the properties and uses of rasakarpūra; the nine ratnas; their

purification (645) and killing; diamonds (645–648); coral, pearls, puṣyarāga (648); marakata (648–649); vaiḍūrya, gomedika, māṇikya (649), nīla; vaikrānta (650–651).

Chapter sixty-eight describes the vidyādharayantra, ṭaṅkayantra, vālukāyantra, garbhayantra (652), kacchapayantra (652–653), jalayantra, gaurīyantra (653), vajramūṣā, bhūdharayantra, koṣṭhayantra, ḍolāyantra, tulāyantra (654), pātālayantra, and tejoyantra; a number of puṭas: mahāpuṭa, gaja- or māhiṣapuṭa, vārāhapuṭa, kaukkuṭapuṭa (655), kāpotapuṭa, govarapuṭa, and kumbhapuṭa.

Chapter sixty-nine is concerned with weights and measures (656–657). Bhoja is referred to.

Chapter seventy is about paribhāṣās. The subjects dealt with are: the plants which are kandasāra, mūlasāra, mūlatvaksāra (658), dārutvaksāra (658–659), sārasāra, pattrasāra, puṣpasāra, phalasāra, bījasāra (659), kṣārasāra, kṣīrasāra, niryāsasāra, and sarvāṅgasāra; medicinal substances to be used in a fresh (ārdra) state; those to be used without the outer layers (niṣtvac) (660) and with or without the husks; substitutes for drugs which are difficult to obtain (661); substitutes for the drugs of the aṣṭavarga group; the items belonging to a large number of groups of substances (662–664).

Chapter seventy-one is concerned with poisonous substances. The subjects are: kṛtrimaviṣa and the treatment of its effects (664); recipes useful in cases of poisoning;[1328] recipes useful against the effects of the bites of dogs,[1329] rats[1330] (665), and scorpions; the recipe of prabhāvatī vaṭī (666); antidotes (in Telugu) (666–667); two more antidotes (667–668);[1331] recipes (in Telugu) (668–671).

The order of the diseases deviates, for some stretches much, for other stretches less, from the *Mādhavanidāna*. Women's and children's diseases are not discussed at all. Chapters on rasāyana and vājīkaraṇa are absent.

Many unusual disorders, described in the work, are also found in the *Basavarājīya*, a later work, which may have borrowed them from Vallabhendra.

Sources are rarely mentioned. Noteworthy are recipes said to be from the *Mādhavanidāna* and *Mādhavakalpa* (665).[1332]

A *Vaidyacintāmaṇi* is quoted in several treatises, but it is often impossible to know from which source the citations derive, since a number of authors is credited with a treatise of that title.

The author, who calls himself Vallabhendra,[1333] was a son of the Telugu brāhmaṇa Amareśvarabhaṭṭa,[1334] of Śrīvatsagotra[1335] and Āpastambasūtra,[1336] and belonged to the Indrakaṇṭha family.[1337]

The Telugu author Devulapalli Veṅkaṭanarasakavi wrote a medical work, called *Āndhracintāmaṇi*, that is almost wholly on the lines of the *Vaidyacintāmaṇi*. The date of this treatise is crucial for the chronological position of Vallabhendra. P. Hymavathi regards it not inappropriate to surmise that Veṅkaṭanarasa lived in the last quarter of the sixteenth century, which would, if proved right, place Vallabhendra in the first half of the same century or earlier. Another Telugu version of the *Vaidyacintāmaṇi* was made by Dhenuvukonda Keśavakavi.[1338]

P. Hymavathi has collected evidence that, in his opinion, is in support of placing Vallabhendra in the fourteenth century: the *Basavarājīya* quotes Vallabhendra's work; Vallabhendra took some verses from the *Bāhaṭagrantha*, dated to about A.D. 1300 or the early fourteenth century; a Śrīgiripaṇḍita, son of Vallabha and also of Śrīvatsagotra, is mentioned in a grant of A.D. 1376; the medical author Lakṣmaṇa, who lived during the reign of Bukka II (A.D. 1404–06), was the son of a Vallabhendra, of Śrīvatsagotra and of Āpastambasūtra.

Rāmnivās Śarmā[1339] and Jyotir Mitra[1340] place Vallabha in the sixteenth century. B. Rama Rao[1341] assigns Vallabhendra to the seventeenth century, without giving clear arguments for this dating.

VĀMĀCĀRYA: *Bālabodha*.[1342]
VĀMANA: (1) *Āyurvedaprakāśa*;[1343] (2) *Vāmananighaṇṭu*.[1344]
VANAMĀLIMIŚRA: *Jvarāvalī*.[1345]
VĀNARĀCĀRYA: *Bālabodha*.[1346]
VANDHYOPĀDHYĀYA: *Cikitsāñjana*.[1347]

VANDĪMIŚRA, son of Jagadīśa: *Yogasudhānidhi*, a work in sixteen chapters (kalā), dealing with kaumārabhṛtya.[1348]

VĀṆĪKAVI: *Vāṇīkārikā*.[1349]
VARARUCI: *Ariṣṭasthāna*.[1350]
VASANTARĀJA: *Vasantarājacikitsā*.[1351]

VĀSUDEVA: *Vāsudevānubhava*,[1352] a compilatory work in which many sources are quoted or referred to. These sources are: Agniveśa, Ātreya, Atri, Bheḍa, *Bṛhadātreya*, *Bṛhadatri*, *Cakradatta*, Caraka, Carpaṭi, Dhūrjaṭi (or Jaijjaṭi), Gorakṣa, Jālandhari, *Laghvatri*, Nāgārjuna, *Rasāmbhonidhi*, Śārṅgadhara, Suśruta, Vāgbhaṭa, Vṛnda, and Vyāḍi.[1353]

The *Vāsudevānubhava* is quoted by Kāśīrāma,[1354] which proves that its author lived before the sixteenth or seventeenth century. It is also quoted in the *Rasarājalakṣmī*[1355] and Viṭṭhala's *Rasasindhu*.[1356]

VĀSUDEVA: (1) *Sarvāṅgasundarī*, a commentary on a *Prayogasāra*;[1357] (2) *Yogasārasaṃgraha*.[1358]

VEDAVYĀSA: *Āyurveda*.[1359]
VEDENDRA: *Vedendrasāra*.[1360]

VEHITHADEVA: *Sadyogakaṇṭhikā*, also called *Rasasāra* and *Rasaratnākara*. Rasauṣadhas have an important place in this work.[1361]

VEṄGALAGIRISŪRI of Mudgala gotra: *Sūtrasthānasaṃjīvinī*, a work in prose dealing with subjects expounded in the sūtrasthānas of Vāgbhaṭa, Suśruta, etc.[1362]

VEṆĪPAṆḌITA: *Svedavidhi*.[1363]

VEṆĪRĀMAŚĀKADVĪPIN: *Māṃsabhakṣaṇadīpikā*, a work in 500 verses, denouncing animal food.[1364]

VEṄKAṬĀCĀRYA, of Gautama gotra:[1365] *Bṛhadvaidyaratnākara.*[1366] This treatise is divided into a pūrvabhāga, containing eight taraṅgas, and an uttarabhāga, containing two taraṅgas.

The pūrvabhāga deals with the origin of āyurveda, aṣṭasthānaparīkṣā, and the nidāna of the diseases; the uttarabhāga is concerned with treatment of the diseases, rasāyana, vājīkaraṇa, the purification of inorganic substances, the application of leeches, etc.

The order of the diseases agrees partially only with that of the *Mādhavanidāna*. Each chapter on treatment begins with karmavipāka concerning the disease dealt with in the chapter and with propitiatory measures (śānti).

Many Smṛtis and Purāṇas are quoted in the work.

Veṅkaṭācārya may have lived in the eighteenth century or later.[1367]

VEṄKAṬEŚA: *Bālaparyāyamañjarī.*[1368]
VEṄKAṬEŚA: *Bheṣajakalpasamuccaya.*[1369]
VEṄKAṬEŚAKAVI: *Vaidyaśiromaṇi.*[1370]

VEṄKAṬEŚVARA: *Dakṣiṇāmūrtinighaṇṭu*, a work in six chapters (ullāsa). The author belonged to the Ellā- or Yallāpantulu family.[1371]

VIDAGDHACŪḌĀMAṆI: *Pañcāśannighaṇṭusāra.*[1372]

VIJAYA, a Jain upādhyāya, was the author of a compilatory work called *Kalyāṇakāraka* or *Vaidyasārasaṃgraha.*[1373] It is based on the works of Hārīta, Rudradeva, Suśruta, Vāgbhaṭa, and others. The treatise contains formulae deriving from Pūjyapāda and Samantabhadra. Some verses on nāḍīparīkṣā and other subjects are said to have been borrowed from the *Merudadaṇḍatantra.*[1374]

VIJAYAKṚṢṆA: *Sārasaṃgraha.*[1375]
VINĀYAKA: *Guṇaśāstra.*[1376]
VĪRABHADRA: *Vaidyacintāmaṇi.*[1377]

VĪRAKṚṢṆA, son of Gopīdevī and Rāghava, pupil of Sudarśanayati: *Kāyacikitsālu.*[1378]

VĪRARĀJA: *Vīrarājoktivilāsa.*[1379]
VĪREŚVARA: *Rogārogavāda.*[1380]
VĪREŚVARĀNANDA, pupil of Hariharānanda: *Yogaratnākara.*[1381]
VIŚĀLAKĪRTI: *Ārogyacintāmaṇi.*[1382]
VIŚVANĀTHA, son of Padmanābha: *Bālacandraprakāśa.*[1383]
VRAJABHŪṢAṆA: *Guṇaratnākara.*[1384]

VRAJARĀJA: *Meghavinoda.*[1385]
VṚṢAGIRINĀTHA: *Dravyakalpabhūṣaṇa.*[1386]
VYĀSAPAṆḌITA: *Arkaprakāśa.*[1387]
YAŚOVĪRA: *Avyaktasaṃgrahaṇa.*[1388]

Chapter 4
Various anonymous works

ABHIDHĀNARATNAMĀLĀ.[1]
ABHINAVACINTĀMAṆI.[2]
ABHINAVACINTĀMAṆISĀRA.[3]
ABHINYĀSACIKITSĀ.[4]
AGADARĀJARATNA.[5]
AGNIKARMAN.[6]
AGNIMĀNDYACIKITSĀ.[7]

AGNIPURĀṆA.[8] Material of medical interest is found in a number of chapters.[9]

Chapter 140 describes drugs and some other articles used in vaśya (subjugation), etc. Their names are: adhaḥpuṣpā, bhṛṅgarāja, gorakṣa, karkaṭī, kṛṣṇadhustūra, kṛtāñjali, kumārī, lajjālukā, mayūraśikhā, meṣaśṛṅgī, mohalatā, putrañjīva, rudantikā, rudrajaṭā, sahadevī, sitārka, snuhī, and viṣṇukrāntā (1–2).

Chapter 141 enumerates thirty-six plants and other drugs used in making men immortal (amarīkaraṇa): akṣya, balā, bhṛṅga, bilva, dhanyāka, dhātrī, eraṇḍa, gokṣuraka, guḍūcī, haridrā, harītakī, javānikā, jīraka, kaṇṭakārī, khadira, kṛtamāla, kṣāra, marīca, muṇḍī, nimba, parpaṭa, pippalī, pippalīśiphā,[10] punarnavā, rucaka, saindhava, śatamūlī, śatapuṣpī, siddhārtha, sindhuvāraka, śuṇṭhī, vaca,[11] vacā, vahni,[12] vāsaka, and viḍaṅga (2–5). The items to be employed for particular purposes are specified. Among these purposes are the elimination of diseases due to deranged vāta, pitta and kapha (12–14), disorders caused by grahas (15), etc.

Chapter 229 describes auspicious and inauspicious dreams.[13]

Chapter 246 deals with the examination of gems (ratnaparīkṣā). Gems to be worn by a king are: candrakānta, gandhaśasyaka, indranīla, jyotīrasa, karketana, mahānīla, marakata, mauktika, padmarāga, pulaka, puṣparāga, sphaṭika, sūryakānta, vaidūrya, and vajra (1–3ab). This list is followed by a second one (3cd–6); some of the gems of this second list are: bhallātaka, girivajra, gomeda, pīlu, pravālaka, rājapaṭṭa,[14] rudhirākṣa, and saugandhika. Several types of pearls are mentioned (12–13).

Chapters 279 to 286 contain a medical treatise, expounded by Dhanvantari to Suśruta.[15] Chapter 282 deals with vṛkṣāyurveda.[16] Chapter 285 is remarkable in giving an account of Ātreya's teachings on siddhayogas, as reported by Dhanvantari.

Chapters 294, 295 and 298 are concerned with snake-bites, the bites of other poisonous animals, and their treatment.

Chapter 299 is about disorders in children caused by demonic beings.[17]

Chapter 370 is concerned with anatomy.[18]

ĀHĀRAVARJYĀVARJYAPADĀRTHĀḤ.[19]
AJĪRṆAKAṢĀYAVIDHĀNA.[20]
AJĪRṆAMAÑJARĪ.[21]
AJĪRṆANIDĀNA.[22]
AJĪRṆAUṢADHI.[23]

THE AKṢIROGANIRMŪLANA,[24] concerned with the treatment of eye diseases, and said to form the ninety-fourth chapter of the *Sanatkumārasaṃhitā* of the Pāñcarātrāgama,[25] passes for teachings given by Sanatkumāra to Nārada.[26] The types of treatment described in this text are said to have met with success in the case of Bṛhadratha, son of Pāribhadra, king of Kāśī.[27]

The *Sanatkumārasaṃhitā* is quoted by Hemādri and therefore earlier than the thirteenth century.[28] Passages from it have been identified among the quotations in Yāmunācārya's *Āgamaprāmāṇya*, which dates from the tenth century.[29]

ĀLOKĀMṚTA.[30]
AMARAVINODA.[31]
ĀMAVĀTACIKITSĀ.[32]
ĀMAYACIKITSĀ.[33]
ĀMLAVETASANIRŪPAṆA.[34]
AMṚTAMAÑJARĪ.[35]
ĀNANDAKHAṆḌA.[36]
ANANTAGHṚTA.[37]
AṆḌAROGANIDĀNACIKITSĀKRAMA.[38]
AṄGAVAIDYANIDĀNA.[39]
AÑJANAVIDHI.[40]
AṄKOLAKALPA.[41]
AṄKOLATAILAVIDHI.[42]
AṄKOLATAILOTPĀDANAVIDHI.[43]
ANNAPĀNAVIDHI.[44]
ANUBHAVASĀRA.[45]
ANUBHAVASIDDHARASĀYANA.[46]
ANUPĀNADADHI.[47]
APASMĀRAROGA.[48]
APHENANIRŪPAṆA.[49]
ĀRDRĀMALAKAPRAYOGA.[50]
ARIṢṬANAVANĪTA.[51]
ARIṢṬANIDĀNA.[52]
ĀROGYACINTĀMAṆI.[53]
ĀROGYAMĀLĀ.[54]
ĀROGYAPĪYŪṢA.[55]
ĀROGYASNĀNAVIDHI.[56]
ARŚACIKITSĀ.[57]
ĀRṢAVIDYĀNUŚĀSANA.[58]

ARŚOROGANIDĀNA.[59]
ARUṆAKERĀMṚTATAILA.[60]
ASĀDHYAŚĪTAPRATIKĀRA.[61]
ASĀDHYAVILAKṢAṆA.[62]
ĀSAVĀDHIKĀRA.[63]
ĀŚCARYAMAHODADHI.[64]
AŚĪTIVĀTANIDĀNA.[65]
AŚĪTIVĀTAROGANIDĀNA.[66]
AŚMARĪCIKITSĀ.[67]
AŚMARIROGANIDĀNA.[68]
ASṚGDARAROGĀDĀNANIDĀNACIKITSĀ.[69]
AṢṬĀDAŚAKUṢṬHALAKṢAṆACIKITSĀ.[70]
AṢṬAGANDHALAKṢAṆA.[71]
AṢṬĀṄGACIKITSĀ.[72]
AṢṬĀṄGAHṚDAYADRAVYAVIJÑĀNA.[73]
AṢṬĀṄGAHṚDAYASAṂGRAHA.[74]
AṢṬĀṄGAKĀṆḌA.[75]
AṢṬAPARĪKṢĀ.[76]
AṢṬASTHĀNAPARĪKṢĀ.[77]
AṢṬAVIDHAŚOBHĀVYĀDHICIKITSĀ.[78]
ĀSURĪKALPA.[79]
ĀSURĪRĀJIKĀKALPA.[80]
AŚVAGANDHĀDICŪRṆA.[81]
AŚVAGANDHĀKALPA.[82]
AŚVAGANDHĀMUSALĪVIJAYĀKALPA.[83]
AŚVAGANDHIBĀLĀKṢĀTAILANIRMĀṆAKRAMA.[84]
AŚVAGANDHIGHṚTA.[85]
AŚVAGANDHIGHṚTAVIDHĀNA.[86]
AŚVINĪKUMĀRAVAIDYAŚĀSTRA.[87]
ATHARVANIGHAṆṬU.[88]
ATISĀRACIKITSĀ.[89]
ATISĀRACIKITSĀKRAMA.[90]
ATISĀRĀDIROGAVICĀRA.[91]
ATISĀRALAKṢAṆA.[92]
ATISĀRAPRATĪKĀRA.[93]
ATISĀRAVARṆANA.[94]
ATISĀRAVAṬAKAVIDHĀNA.[95]
ĀTMARAKṢAṆĀRTHANĪTI.[96]
ĀTREYASAṂHITĀSĀRA.[97]
ĀTREYASĀRASAṂGRAHA.[98]
ĀTREYAVĀGYOGA.[99]
ĀTURAPARĪKṢĀ.[100]
AUṢADHA.[101]
AUṢADHACIKITSĀ.[102]

AUṢADHACIKITSĀNUPĀNAVIDHĀNA.[103]
AUṢADHAGRAHAṆAPĀKAVIDHI.[104]
AUṢADHAGRANTHA.[105]
AUṢADHAGUṆAPĀṬHA.[106]
AUṢADHAJĀRAṆAMĀRAṆAVIDHI.[107]
AUṢADHAJÑĀNATATSAṂGRAHAṆAKĀLAPRAYOGAVIDHĀNA.[108]
AUṢADHAKALPA.[109]
AUṢADHAKALPASAMŪHA.[110]
AUṢADHAKARAṆAPRAKĀRA.[111]
AUṢADHANĀMĀNI.[112]
AUṢADHANIGHAṆṬU.[113]
AUṢADHANIRMĀṆACIKITSĀVIDHĀNA.[114]
AUṢADHANIRMĀṆACIKITSĀVIDHI.[115]
AUṢADHANIRMĀṆAVIDHI.[116]
AUṢADHANIYAMA.[117]
AUṢADHAPĀKĀDHIKĀRA.[118]
AUṢADHAPĀKĀVALĪ.[119]
AUṢADHAPĀKAVIDHI.[120]
AUṢADHAPALLAVA or *-pallavī.*[121]
AUṢADHAPATTRIKĀ.[122]
AUṢADHAPRAKRIYĀ.[123]
AUṢADHAPRASTUTAKARAṆA.[124]
AUṢADHAPRATINIDHIKALPANĀ.[125]
AUṢADHAPRAYOGA.[126]
AUṢADHAPRAYOGAKĀRIKĀ.[127]
AUṢADHARASĀYANA.[128]
AUṢADHĀRṆAVA.[129]
AUṢADHASĀDHANA.[130]
AUṢADHASAṂGRAHA.[131]
AUṢADHASAṂGRAHA, TANTROKTA-. See *Tantroktauṣadhasaṃgraha.*
AUṢADHASĀRANIRŪPAṆA.[132]
AUṢADHAVIDHĀNA.[133]
AUṢADHAVIDHI.[134]
AUṢADHAYOGA.[135]
AUṢADHAYOGAGRANTHA.[136]
AUṢADHAYOGĀḤ.[137]
AUṢADHAYOGAMAHĀRATNĀKARA.[138]
AUṢADHAYOGAMAHĀRATNĀVALI.[139]
AUṢADHAYOGARATNĀKARA.[140]
AUṢADHAYOGASAṂGRAHA.[141]
AUṢADHIGRANTHA.[142]
AUṢADHIKALPA.[143]
AUṢADHIKOŚA.[144]
AUṢADHILAKṢAṆA.[145]

AUṢADHIMANTRAKALPĀDI.[146]
AUṢADHINĀMAMĀLĀ.[147]
AUṢADHINĀMĀNI.[148]
AUṢADHINĀMĀVALĪ. See *Auṣadhināmamālā*.
AUṢADHIPRATINIDHISAṂGRAHA.[149]
AUṢADHIRASĀYANAKALPA.[150]
AUṢADHISAṂGRAHA.[151]
AUṢADHIVARGA.[152]
AUṢADHIYANTRATANTRA.[153]
AUṢADHYĀDINĀMĀVALI.[154]
AVALEHASAṂGRAHA.[155]
ĀVARTANĪKĀKODUMBARATAILANIRMĀṆAVIDHI.[156]
ĀYUḤPRAMĀṆA.[157]
ĀYURDĀYĀDHYĀYA.[158]
ĀYURVEDA.[159]

The ĀYURVEDĀBDHISĀRA[160] is an anonymous treatise,[161] compiled from various sources.

The first part of this work consists of 4433 verses, accompanied by a commentary, probably by the same author. It deals with the nidāna and treatment of the diseases as arranged in the *Mādhavanidāna*, from jvara up to visarpa.[162] The verses on nidāna are largely taken from Mādhava's work, although their order sometimes differs. The second part, containing verses 4434 to 9909, is concerned with the nidāna and treatment of the remaining diseases,[163] largely arranged again in agreement with the *Mādhavanidāna*. The nidāna verses are mostly from that work; sometimes a few stanzas are added.[164] The order of the diseases in the second part disagrees to some extent with their arrangement in the *Mādhavanidāna*.[165] Diseases added are snāyuka (4490–4504), phiraṅga (4505–4576),[166] śītalā (4577–4650), somaroga (5804–5820), mūtrātisāra (5821–5823), and klaibya (6226–6540). The chapters on the diseases and their treatment are followed by sections on vājīkaraṇa and rasāyana.

The remaining part of the *Āyurvedābdhisāra* is devoted to a variety of subjects: weights and measures (6541–6569); technical rules, the meaning of technical terms, netraparīkṣā (6707–6711), nāḍīparīkṣā (6712–6723), mūtraparīkṣā (6724–6731), anatomy (6863–6924), pharmacological terms (6958–7016), sneha and sveda (7017–7076), pañcakarman (7077–7242), dhūmapāna (7243–7264), etc. This long section on general subjects is followed by a nighaṇṭu (7339–8798), a rather elaborate section on alchemy (8799–9562), and, finally, a chapter on karmavipāka and religious means of counteracting diseases resulting from bad acts in previous lives (9563–9903).

Sources of verses incorporated in the work are: Agniveśa (9372–77), Baudhāyana (9725; 9791–96; 9798–9802; 9812–18), Bhāluki (163), Bhoja (3459; 3502; 3521; 3531; 3651–52; 4459; 4696), Cakra (112), *Cakradatta* (179), Caraka (often), Dhanvantari (584), Dṛḍhabala (69), *Gaurīmata* (9434), Gayadāsa (70), *granthāntara* (6907), *Guṇagrantha* (9103), Hārīta (2626–27ab; 3648; 9368–69), *Kāmaśāstra* (3992), Karavīra (615), Kāśyapa (1002), *Kāśyapasaṃhitā* (5645), Kharanāda (113; 893), Madanapāla (192), *Mahābhārata* (9682), *Padmapurāṇa* (9584–90), *Rasakalitakalikā* (348), *Rasapaddhati* (9060; 9101–02; 9148), *Rasasaṃketakalikā* (806–807), *Rasavāgbhaṭa* (9136), *Rasendrakoṣa* (982; 1020),[167] *Śātātapīya* (9719), Śaunaka (6997), Suśruta (often), *tantrāntara* (often), Tīsaṭha (6656–58), Uśanas (3094), Vāgbhaṭa (often), Videha (586; 4861–63; 5034; 5055), *Vṛddhagautama* (9804–09; 9873–78), *Vṛddhapārāśara* (9592), *Vṛddhasuśruta* (117–118; 2627c-f), and *Yogacandrikā* (8821–22).

Sources quoted or referred to in the commentary are: Āyurvedaprakāśakṛt (8887; 9024), Bāṣpacandra (11–12; 2798–99), Bhāluki (66; 99), Bhaṭṭārahariścandra (2812), Bhāvamiśra (3160–65), Bhoja (610; 1745; 3511; 4150; 4699; 4703; 4712–13; 5427; 5947), Cakra (62–67; 1242–44),[168] *Cakradatta* (183), Caraka (often), *Dhanvantarīyanighaṇṭu* (183), Gadādhara (1320; 3300–02; 4983; 4987), Gayadāsa (2812; 2931), Hārīta (57–58; 102–105; 610; 1235), *Harivaṃśa* (30–33ab), Īśāna (62; 3098), Jejjaṭa (39; 50–51; 62; 120; 1004; 1242–44, twice; 1317; 1324; 1392–93; 1426; 2053; 2087; 2520; 2812), Kārttika (57–58; 154; 1320; 1401–02; 4983; 4987), Kārttikakuṇḍa (39), Kīrtikuṇḍa (97), Kṣīrapāṇi (2812),[169] Madanapāla (4221), Mādhavācārya (3915), *Madhukośa* (4979), Madhukośakṛt (117–118; 1256–58; 1401–02; 1742–43; 1751; 2033–34; 2083; 2427; 2656–57; 3098; 3460; 3994; 4072–73; 4654; 4665; 4693; 4699; 4703; 5030; 5291; 5292; 5296; 5633; 5751), Parāśara (610), prācīnāḥ (2905–07), Rasapaddhatikṛt (9184), *Rasapradīpa* (1273–74), Suśruta (often), *tantrāntara* (often), Tīsaṭa (183), Vāgbhaṭa (often), Vaṅgasena (183), *Vaśiṣṭhasaṃhitā* (6869), Vātsyāyana (4061), Videha (102–105; 5006; 5051; 5360; 5485), *Viśvaprakāśa* (6227), *Vṛddhabhoja* (1605), and *Yogapayodhi* (1409).[170]

One series of thirteen saṃnipāta fevers is described (71–86), namely the series beginning with sandhiga and ending with abhinyāsa; by far the larger part of the verses are practically identical with those found in the *Bhāvaprakāśa*, but their source is not indicated; the verse enumerating the symptoms of antaka is from some unknown treatise. Most of the verses on the treatment of these fevers (337–389) form part of the *Bhāvaprakāśa* as well. The same applies to those on the therapy of complications of fevers (506–540). A fever, dealt with in the *Āyurvedābdhisāra* but not mentioned in other sources, is mundhārajvara (553–554).

The uparasas distinguished are: gandhaka, hiṅgula, abhraka, tālaka, manaḥśilā, añjana, ṭaṅkaṇa, rājāvarta, cumbaka, sphuṭikā, śaṅkha, khaṭikā, gairika, kāsīsa, rasaka, kapardikā, vālukā, bola, kaṅkuṣṭha, and saurāṣṭrī (8861). Additional uparasas, also called sādhāraṇarasas, are: samudraphena, kṣudraśaṅkha, muktāśukti, jalaśukti, mṛttikā, agnijāra, and girisindūra (9027–40).

Three series of metals (dhātu) are mentioned: (1) svarṇa, tāra, āra (brass), tāmra, nāga, vaṅga, and tīkṣṇaka; mercury (pārada) is sometimes added to this series (9041); (2) svarṇa, tāra, tāmra, the two metals called paṅgu,[171] rītikā, ghoṣa (= pañcaloha), and loha (9042); (3) suvarṇa, rūpyaka, tāmra, raṅga, yasada, sīsaka, and loha (9043). Metals described are: gold (9049–92), silver (9093–9110), copper (9111–36), tin (9137–66), zinc (9167–70), lead (9171–84), and iron (9185–9264); maṇḍūra is added (9265–78).

The upadhātus are: tāpya, vimalā, tuttha, kāṃsya, pittala, sindūra, and śailaniryāsa (9046). Another series of upadhātus consists of: abhraka, mākṣika, tāla, śilā, nīlāñjana, tutthaka, and rasaka (9048). Upadhātus described are: svarṇamākṣika (9279–

94), tāramākṣika (9295–9301), tuttha (9302–14), bhūnāga (9315–21), kāṃsya and pittala (9322–41), bharta (= pañcaloha or pañcarasa) (9342–46), sindūra (9347–52), and śilājatu (9353–92).[172]

The usual nine gems (ratna) are dealt with (9402–31). The uparatnas described are: vaikrānta, sūryakānta, candrakānta, peroja, karpūramaṇi,[173] kāca, and dugdhapāṣāṇa (9432–49).

Two series of upaviṣas are listed: (1) arka, sehuṇḍa, dhattūra, lāṅgalī, karavīraka, guñjā, ahiphena (9547–48); (2) arka, lāṅgalī, guñjā, hayāri, viṣamuṣṭi, jaipāla, unmatta, ahiphena, bhaṅgā (9550).

Some noteworthy names of drugs are ākulakṛt (380)[174] and kuliñja (380). The commentary mentions not infrequently substitutes for rare drugs[175] and vernacular names of medicinal plants and diseases.[176]

Variants of the text are also noticed by the commentator.[177]

The commentator appears to be particularly indebted to the authors of the *Madhukośa*.

The *Āyurvedābdhisāra* is later than the *Bhāvaprakāśa*[178] and *Āyurvedaprakāśa*, which are quoted, and earlier than A.D. 1796, the date of completion of its MS.[179]

ĀYURVEDACINTĀMAṆI.[180]
ĀYURVEDĀGAMA.[181]
ĀYURVEDĀGAMANA.[182]
ĀYURVEDAGRANTHA.[183]
ĀYURVEDALAKṢAṆĀDHYĀYA.[184]
ĀYURVEDAPARIBHĀṢĀ.[185]
ĀYURVEDAPRADĪPA.[186]
ĀYURVEDAPRAKĀŚA.[187]
ĀYURVEDĀRTHAPRAKĀŚA.[188]
ĀYURVEDĀRTHASĀRA.[189]
ĀYURVEDASAṂGRAHA.[190]
ĀYURVEDASĀRA.[191]
ĀYURVEDASĀRASAṂGRAHA.[192]
ĀYURVEDASARVASVASĀRASAṂGRAHA.[193]

ĀYURVEDASARVASVASĀRASAṂGRAHA. A treatise preserved in the Tibetan Tanjur.[194] The Tibetan title is *Ćheḫi rig-byed mthaḫ-dag-gi sñiṅ-po bsdus-pa.*[195] This work is described as a collection of extracts from the treatises of ten famous ācāryas, arranged by the Tibetan physician Dar-mo sman-rams-pa Blo-bzaṅ chos-grags (Sumatidharmakīrti)[196] and dge-sloṅ Ḫjam-dbyaṅs grags-pa (bhikṣu Mañjughoṣakīrti);[197] the translator was the brāhmaṇa (ćhaṅs-sras) Bśad-paḫi rdo-rje[198] of Za-hor,[199] who was assisted by the great translator Lhun-grub (Nirābhoga).[200] The Tibetan text was written in the Potala.[201]

This treatise consists of a number of heterogeneous tracts dealing with the aetiology of diseases, the examination of the pulse,[202] hygiene, therapy,[203] a dialogue between Śiva and Pārvatī, formulae of collyria and caustics, yantras and mantras, etc.[204]

ĀYURVEDAŚĀSTRAVAIDYAKAGRANTHA.[205]
ĀYURVEDAŚLOKASAṂGRAHA.[206]
ĀYURVEDASUDHĀNIDHI.[207]

ĀYURVEDASŪTRA.[208] This highly interesting text is the only one so far known that aims at integrating āyurveda and a form of yoga. It is written in sūtra style and comprises 1,252 sūtras, arranged in sixteen chapters (praśna).

Chapter one deals with āma as the source of all diseases (1.8–9), the six tastes (1.40), the transformation (pāka) of three of these tastes by the digestive fire (1.41–46),[209] the digestive fire (pācakapitta; 1.48) located in the organ called grahaṇī (1.50), and with fever as a disease caused by weakening of the grahaṇī (1.51–54). Five types of fever are described, namely the vāta, vātapitta, vātakapha, kaphapitta, and āgantu types (1.55–59),[210] and the signs of release from fever (1.61–65). The statement about the corruption of the grahaṇī as the main cause of diseases is repeated (1.64). The chapter proceeds with statements on the rasas and doṣas, the five mahābhūtas, the vessels (sirā), and the three guṇas, i.e., sattva, rajas and tamas.

Chapter two is concerned with anatomy (2.1–8), bloodletting (2.46–48), fertility, and pregnancy (2.50–69), but in particular with thirty-five lotuses (padma) thought to be present in the human body (2.9–44); each of these lotuses is connected with a specified number of vessels and one or two letters of the alphabet.[211] Towards the end of the chapter (2.71) it is said again that an increase of āma is the cause of all disorders.

Chapter three is about yoga; it quotes, without referring to the source, the *Yogasūtra*.[212] The teachings on yoga found in the *Āyurvedasūtra* differ in many respects from those of the *Yogasūtra*[213] and may have been influenced by some commentators on the latter work, in particular Bhoja[214] and Rāmānandasarasvatī.[215] The author lays much emphasis on dietetics as a prerequisite for attaining liberation. He states that sweet foods promote sāttvika, acid foods rājasa, and pungent (kaṭu, ūṣaṇa) foods tāmasa qualities in the human being; consequently, a person striving for liberation should restrict himself to sweet articles of diet (3.7–10). As in almost each of the chapters, it is stressed that the removal of āma is the foremost principle of any treatment (3.33).

Chapter four is about the application of yoga, as described in chapter three, to medicine. By means of yoga one attains nourishment (poṣaṇa) of the dhātus, resulting in health, as opposed to decline (śoṣaṇa) of the dhātus, which leads to a diseased state. Some diseases and their varieties are described, in particular udara (4.17–27),[216] pāṇḍuroga 4.28–32), and vātavyādhi (4.33–36), as well as some relationships between tastes and dhātus (4.40–42).[217]

Chapter five deals with relationships between tastes and doṣas (5.1–11), the qualities of the five mahābhūtas (5.16), curability and incurability of diseases (5.27–31), relationships between tastes and dhātus (5.44–49),[218] and various other subjects.[219]

Chapter six opens with a third series of relationships between tastes and dhātus (6.1–7).[220] Other topics of this chapter are the duration of diseases and their curability or incurability ((6.23–36), and the properties of various types of milk (6.88–92). The importance of ajīrṇa as a cause of other diseases is emphasized (6.39).

Some of the subjects of chapter seven are: the properties of various types of grain

(7.21–29) and inauspicious dreams (7.68–70). The role of āma as a cause of disorders is stressed again (7.54, 58, 59). Chapter eight is, among other things, about types of trees (8.18–22), the śodhana and śamana types of treatment (8.43–48), rules for the regimen to be observed during day and night, and general rules for a virtuous and healthy life (8.54–104). Chapter nine deals with units of time, from lava to saṃvatsara (9.9–26), the months of the year,[221] and the regimen to be observed during the various seasons.

Chapter ten describes the properties and actions of a series of medicinal substances.[222]

Chapters eleven and twelve, concerned with yoga, are borrowed from the *Yogasūtra*.[223] Chapter thirteen contains many statements on āma and on diseases resulting from its presence in the body (13.6, 7, 10, 11); it has also sūtras on the relationships between the rasas and the seven dhātus.[224] Chapter fourteen enumerates the twenty-seven nakṣatras, together with the letters of the alphabet and the lotuses of the parts of the body with which they are connected.[225] The same chapter contains a list of diseases bound up with the nakṣatras (14.36–62), and the first part of a list of the deities to be worshipped when one suffers from one of these diseases (14.63–87). Chapter fifteen continues the latter list (15.1–62); the remaining part is devoted to the therapy of some diseases. Chapter sixteen is entirely about the treatment of diseases.

The pharmaceutical preparations chiefly used are cūrṇa, taila and leha (15.65, 68, 73); kvāthas (15.65, 68, 73) and ghṛtas (15.73) are sporadically prescribed. The treatise ends with some basic principles of āyurveda.

The most conspicuous feature of the *Āyurvedasūtra* is the attempt at integrating āyurveda and a particular form of yoga that shows Tantric influence. The six cakras of Tantric yoga are referred to (4.49), although not described; the first of these cakras, called mūlādhāra, is mentioned (4.49), as well as the two main nāḍīs, Iḍā and Piṅgalā (4.48 and 51). The emphasis on dietetics as a means for attaining yoga calls for attention, as well as the central role of āma and ajīrṇa as causative factors in diseases. The old names of the months of the year and the list of twenty-seven nakṣatras are also noteworthy.[226]

Nothing is known with any certainty about the date of composition of the *Āyurvedasūtra*. The style does not prove it to be an ancient work. The use of the old names of the months, the list of twenty-seven nakṣatras, and the absence of any mention of the nine planets do not convincingly point to an early date. The form of yoga described may show that the author was acquainted with Rāmānandasarasvatī's commentary on the *Yogasūtra*. Tantric influences are clearly visible as well. The sources used by the author in describing the properties and actions of medicinal substances cannot be identified.

The commentary on the *Āyurvedasūtra*, written by Yogānandanātha, reaches up to sūtra fifty-one of chapter five. It seems probable that the author regarded his work as completed since the commentary ends with a benedictory verse. The remaining sūtras may have been considered to be less important, or have even been added later.

Yogānanda may have belonged to the school of Rāmānandasarasvatī, the disciple of Govindānandasarasvatī and author of the *Maṇiprabhā* commentary on the *Yogasūtra*,[227] who lived about A.D. 1600[228] or in the beginning of the seventeenth century.[229]

Sources are rarely referred to by name in the commentary. A *Bheṣajakalpa* is mentioned once (ad 3.17). The *Aṣṭāṅgahṛdayasaṃhitā* is profusely quoted.[230] Also quoted are the *Ṛgveda* (ad 4.52), *Taittirīyabrāhmaṇa* (ad 4.14), and Māgha's *Śiśupālavadha* (ad 1.33).

ĀYURVEDAVAIDYAKĀŚIRĀJAGRANTHA.[231]
ĀYURVEDAVIJÑĀNA.[232]
ĀYURVEDOKTAPRAYOGA.[233]
ĀYURVEDOTPATTI.[234]
ĀYURVṚDDHI.[235]
BAHUMŪTRĀDICIKITSĀ.[236]
BAHUMŪTRAROGACIKITSĀ.[237]
BAHURŪPAKALPA.[238]
BĀKUCĪKALPA.[239]
BĀLABODHA.[240]
BĀLACIKITSĀ.[241]
BĀLACIKITSĀ or *Bālarogādhikāra*.[242]
BĀLACIKITSĀMṚTA.[243]
BĀLACIKITSĀPADDHATI.[244]
BĀLACIKITSĀPAṬALA.[245]
BĀLAGRAHACIKITSĀ.[246]
BĀLAGRAHACIKITSĀTANTRA.[247]
BĀLAGRAHACIKITSĀVIDHI.[248]
BĀLAGRAHACIKITSĀYANTRĀṆI.[249]
BĀLAGRAHAHARAVIDHI or *Navagrahaśānti*.[250]
BĀLAGRAHANĀŚANAMANTRAYANTRA.[251]
BĀLAGRAHAROGACIKITSĀVIDHI.[252]
BĀLAGRAHAŚĀNTI.[253]
BĀLAGRAHAŚĀNTI or *Bālarakṣāvidhi*.[254]
BĀLAGRAHAŚĀNTIPRAYOGA.[255]
BĀLAGRAHASTAVA.[256]
BĀLAGRAHASTAVA.[257]
BĀLAGRAHASTAVARĀJA.[258]
BĀLAGRAHAVAIDYASĀRA.[259]
BĀLAGRAHAVIDHĀNA.[260]
BĀLAGRAHAYOGAŚĀNTI.[261]
BĀLAGRAHAYOGAŚĀNTIVIDHI.[262]
BĀLAJVARĀDICIKITSĀ.[263]
BĀLAKABODHINĪ.[264]
BĀLĀMAYACIKITSĀ.[265]
BĀLAROGACIKITSĀ.[266]
BĀLAROGĀDHIKĀRA.[267]
BĀLAROGAHARAVIDHĀNA.[268]
BALĀTAILAVIDHĀNA.[269]

BĀLATANTRA or *Cikitsākalikā.*[270]
BĀLAVAIDYA.[271]
BALĪSIDDHĀNTA.[272]
BĀLOPACĀRAṆĪYA.[273]
BHAIRAVAPRASĀDA.[274]
BHAIṢAJAKALPA.[275]
BHAIṢAJYA.[276]
BHAIṢAJYARATNĀVALĪ.[277]
BHAIṢAJYASĀRASAMUCCAYA.[278]
BHAIṢAJYAVASTUNICAYAGUṆOPAYOGANIRṆAYA.[279]
BHAIṢAJYAVIDHĀNA.[280]
BHAKṢAṆAVIKĀRA.[281]
BHALLĀTAKAKALPĀDIYOGASAṂGRAHA.[282]
BHALLĀTAKAPĀKA.[283]
BHALLĀTAKARASĀYANAVIDHI.[284]
BHALLĀTAKĪCŪRṆAVIDHI.[285]
BHĀRASAṂBHĀRA.[286]
BHĀRATASĀRASAṂGRAHA.[287]
BHĀVACINTĀMAṆI.[288]
BHĀVĀRTHADĪPIKĀ.[289]
BHEṢAJAJÑĀNAMĀLĀ.[290]
BHEṢAJAKALPASAṂGRAHA.[291]
BHEṢAJAKALPASAMUCCAYA.[292]
BHEṢAJAKALPASĀRA.[293]
BHEṢAJAKALPASĀRASAṂGRAHA.[294]
BHEṢAJANĀMAMĀLĀ or *Dravyanirṇayanighaṇṭu.*[295]
BHEṢAJARAHASYA.[296]
BHEṢAJASAṂHITĀ.[297]
BHEṢAJASARVASVA.[298]
BHEṢAJATANTRA.[299]
BHEṢAJATARKA.[300]
BHEṢAJĀVALOKA.[301]
BHIṢAGĀNANDA.[302]
BHIṢAGGRANTHAMĀLIKĀ.[303]
BHIṢAGRATNAMĀLĀ.[304]
BHIṢAGRATNAMĀLIKĀ.[305]
BHIṢAGUTSAVA.[306]
BHIṢAKCAKRANIDĀNA.[307]
BHIṢAKCINTĀMAṆI.[308]
BHOGALAKṢAṆA.[309]
BHOGYADRAVYAGUṆAVIṢAYA.[310]
BHOJANAHITĀHITAVICĀRA.[311]
BHOJANAKASTŪRĪ.[312]
BHOJANAŚĀSTRA.[313]

BHṚGVĀDICŪRṆAVIDHĀNA.[314]
BHṚṄGĀMALAKATAILANIRMĀṆAKRAMA.[315]
BHṚṄGARĀJAKALPA.[316]
BHŪKADAMBAKALPA.[317]
BHUVANASĀRA.[318]
BILVĀDILEHYANIRMĀṆAVIDHI.[319]
BILVALEHYANIRŪPAṆA.[320]
BRĀHMAṆABHAIṢAJYAKARAṆANIRṆAYA.[321]
BRAHMĀṆḌAKALPA.[322]
BRĀHMĪGHṚTA.[323]
BRĀHMĪRASĀYANAVIDHI.[324]
BṚHACCIKITSĀSĀRA.[325]
BṚHADAGNIKUMĀRAKA.[326]
BṚHADBHAIṢAJYAKALPA.[327]
BṚHADBHEṢAJAKALPA.[328]
BṚHADVAIDYAPRASĀRAKA.[329]
BṚHADVAIDYASĀRA.[330]
BṚHAJJĪRAKĀDIMODAKA.[331]
BṚHATĪKALPA.[332]
CAKRĀṄKAKALPA.[333]
CAKRAŚEṢA.[334]
CAKRATATTVA.[335]
CAMATKĀRACINTĀMAṆI.[336]
CAMATKĀRANIGHAṆṬU.[337]
CĀMUṆḌIKĀLAGHUNIGHAṆṬU.[338]
CANDRĀRKATĀRAKA.[339]
CANDRODAYA.[340]
CANDRODAYAMĀTRĀVIDHĀNA.[341]
CANDRODAYAPRAKĀŚA.[342]
CANDRODAYAVIDHĀNA.[343]
CAṄKA.[344]
CATUḤṢAṢṬIJVARANIDĀNA.[345]
CATUḤṢAṢṬIVYĀDHIHARAUṢADHANIRŪPAṆA.[346]
CATURDAŚAROGANIDĀNA.[347]
CATURDAŚAROGANIDĀNANIRŪPAṆA.[348]
CHILARAVAIDYAPUSTAKA.[349]
CIKITSĀ.[350]
CIKITSĀCANDRIKĀ.[351]
CIKITSĀCINTĀMAṆI.[352]
CIKITSĀCINTĀMAṆIMĀLĀ.[353]
CIKITSĀDARPAṆA.[354]
CIKITSĀDĪPIKĀ.[355]
CIKITSĀGRANTHA.[356]
CIKITSĀGRANTHASĀRA.[357]

CIKITSĀKALIKĀ.[358]
CIKITSĀKRAMA.[359]
CIKITSĀKRAMAUṢADHANIRMĀṆAVIDHI.[360]
CIKITSĀMAHĀRṆAVA.[361]
CIKITSĀMĀLATĪMĀLĀ.[362]
CIKITSĀMĀLIKĀ.[363]
CIKITSĀMAÑJARĪ.[364]
CIKITSĀMṚTA.[365]
CIKITSĀMṚTADARPAṆA.[366]
CIKITSĀMṚTASĀGARA.[367]
CIKITSĀMŪLA.[368]
CIKITSĀṄGAPARIBHĀṢĀSAṂGRAHA.[369]
CIKITSĀÑJANA.[370]
CIKITSĀPADDHATI.[371]
CIKITSĀPARIBHĀṢĀ.[372]
CIKITSĀPARIKARAVIVARAṆA.[373]
CIKITSĀPHALANIRṆĀYAKANAKṢATRAVIVARAṆA.[374]
CIKITSĀPRADĪPA.[375]
CIKITSĀPRAKARAṆA.[376]
CIKITSĀPRAKĀŚA.[377]
CIKITSĀPRAYOGA.[378]
CIKITSĀRATNA.[379]
CIKITSĀRATNĀKARA.[380]
CIKITSĀRATNASAṂGRAHA.[381]
CIKITSĀRṆAVA.[382]
CIKITSĀSĀGARA.[383]
CIKITSĀSAMBANDHA.[384]
CIKITSĀSAṂGRAHA.[385]
CIKITSĀSAMUCCAYA.[386]
CIKITSĀSĀRA.[387]
CIKITSĀSĀRAKAUMUDĪ or *Sārakaumudī*.[388]
CIKITSĀSĀRASAṂGRAHA.[389]
CIKITSĀSĀRASAṂGRAHĀNUKRAMAṆIKĀ.[390]
CIKITSĀSĀRASAMUCCAYA.[391]
CIKITSĀSĀRODDHĀRA.[392]
CIKITSĀSARVASĀGARA.[393]
CIKITSĀSARVASAṂGRAHA.[394]
CIKITSĀŚĀSTRA.[395]
CIKITSĀSTHĀNA.[396]
CIKITSĀSUDHĀ.[397]
CIKITSĀTANTRA.[398]
CIKITSĀVIDHĀNA.[399]
CIKITSĀVIDHI.[400]
CIKITSĀVIṢAYA.[401]

CIKITSĀYOGA.[402]
CIKITSĀYOGAŚATA.[403]
CIKITSĀYOGAŚATAKA.[404]
CIKITSITA.[405]
CIKITSOPĀYA.[406]
CIKITSYACIKITSAKAPARĪKṢĀLAKṢAṆAVIDHI.[407]
CIÑCĀDILEHYAKARAṆAKRAMA.[408]
CIÑCĀŚAṄKAVAṬĪVIDHI.[409]
CINTĀMAṆI.[410]
CITRAKĀDITAILA.[411]
CITRAKAKALPA.[412]
COPACĪNĪGUṆA.[413]
COVACĪNĪSEVANAVIDHI.[414]
COVACĪNYĀDICŪRṆA.[415]
CŪRAṆAGIRI.[416]
CŪRṆĀDHIKĀRA.[417]
CŪRṆĀDIVIDHĀNA.[418]
CŪRṆALEHYAKARAṆA.[419]
CŪRṆALEHYAKRAMA.[420]
CŪRṆĀNI.[421]
CŪRṆASAṂGRAHA.[422]
CŪRṆASAMUDĀYA.[423]
CŪRṆAVIDHĀNA.[424]
CŪRṆAVINODA.[425]
CŪTĀSTHILEHYAVIDHĀNA.[426]
DAKṢIṆĀMŪRTINIGHAṆṬU.[427]
DAKṢIṆĀVARTAŚAṄKHAKALPA.[428]
DĀMPATYASAUKHYAVṚDDHIKARARASĀYANAVIDHĀNA.[429]
DĀMPATYOPAYOGIVAIDYAKĪYAVICĀRA.[430]
DANTARASANĀROGACIKITSĀ.[431]
DAŚAPARĪKṢĀ.[432]
DAŚAPARVA.[433]
DAŚAVIDHAPĀKA.[434]
DĀTAPUṢṬA.[435]
DATTĀTREYAMATA.[436]

DATTĀTREYATANTRA:[437] a treatise on ṣaṭkarman, written in the form of a dialogue between Śiva and Dattātreya.[438]

The work consists of about 700 verses and some prose, arranged in thirty chapters (paṭala). The contents of the chapters are listed as follows (1.14–17): māraṇa and mohana (2), stambha (3 and 4), vidveṣa (5), uccāṭana (6), vaśī (7 to 9), ākarṣaṇa (10), indrajāla or kautuka (11), yakṣiṇī(mantrasādhana) (12), rasāyana (13), (mṛtyu)kālajñāna (14), anāhāra (15), atyantāhāra (16), nidhidarśana (17), vandhyāputravatīyoga or vandhyāgarbhadhāraṇa (18), mṛta(vatsāsuta)jīvitva (19), kākavandhyāputrakaraṇa

(20), vivādavijaya (21), vājīkaraṇa (22), strīdrāvaṇa (23), vīryastambhana (24), liṅgavardhanādiyoga (25), keśarañjana (26), keśapātana (27), bhūtagrahanivāraṇa (28), grahadoṣapīḍānivāraṇa (29), and siṃhavyāghrasarpavṛścikādibhayanāśana (30). Of some medical interest are chapters thirteen to sixteen, eighteen to twenty, twenty-two, and twenty-four to twenty-eight.

Earlier works, referred to in the introductory stanzas, are: *Amṛteśvaratantra,*[439] *Ḍāmaratantra, Kākacaṇḍeśvarī(matatantra),*[440] *Merutantra, Rādhātantra,*[441] *Tārātantra,*[442] and *Uḍḍīśatantra.*[443]

DAVANAGRANTHA.[444]
DEHALAKṢAṆA.[445]
DEHATATTVANIRṆAYA.[446]
DEŚALAKṢAṆĀNI.[447]
DEVADĀLĪKALPA.[448]
DEVĀÑJANA.[449]

DEVEŚVARĀDIṢṬANIYAMASAHITAGAṆAPATISAMUDRAPHALAPRAYOGA. This anonymous work, preserved in the Tibetan Tanjur under the title of *Lha-dbaṅ-phyug-gis ćhogs-bdag-la gnaṅ-baḥi sa-mu-dra pha-laḥi sbyor-ba kha-bsgyur daṅ bcas-pa,* was translated by Ṅag-dbaṅ phun-ćhogs Lhun-grub.[450]

DEVĪNIGHAṆṬU.[451]

DEVĪYĀMALA.[452] Quoted in the *Rasakāmadhenu.* Mentioned among the sources of the *Pāradasaṃhitā.*

DHAMANIPRAKĀŚA.[453]
DHANAÑJAYANIGHAṆṬU.[454]

DHANVANTARI.[455] A comprehensive treatise on generalities, nidāna and treatment, partly composed in the form of a dialogue between a teacher (Dhanvantari) and Śiva, addressed as Īśvara and Maheśvara.[456]

Chapter (prakāśa) one: a series of maṅgalas, addressed to Gaṇeśa, Sarasvatī, Śiva, and Śrīkṛṣṇa (1–4); the pādacatuṣṭaya (5–9); omina relating to the messenger (10–11); śakunas (12–13); aṣṭasthānaparīkṣā (14); nāḍīparīkṣā (15); mūtraparīkṣā (16); malaparīkṣā (17); jihvāparīkṣā (18); śabdaparīkṣā (19); sparśaparīkṣā (20); rūpaparīkṣā (21); dṛṣṭiparīkṣā (22); concluding verse (23); auspicious dreams (24); inauspicious dreams (25); kālajñāna (26); deśajñāna (the three types of country; 27–30); kṣetrajñāna, as expounded by Śiva (the four types of soil: brāhma, kṣātra, vaiśya, śaudra; 31–35); the properties of substances originating from these soils (36); the deities governing these soils are, according to the teaching of Umāvallabha (= Śiva): Brahmā, Śakra (= Indra), Kinnara, and Īśa (37); the five types of soil: pārthiva, āpya, taijasa, vāyavīya, and āntarikṣa (38–42); the properties of products from these soils (43); the deities governing these soils are: Brahmā, Viṣṇu, Rudra, Īśvara, and Sadāśiva (44); the mythical origin of trees from amṛta drops, fallen from

the pitcher snatched by Garuḍa (45); the four kinds of trees, dependent on the type of soil on which they grow (46); the characteristics of brāhmaṇa, kṣatriya, vaiśya and śūdra types of trees (47); the three types of medicinal substances: doṣapraśamana, dhātupradūṣaṇa, svasthavṛttahita (48); the three types of substances called jāṅgama, audbhida and pārthiva (49); substances belonging to these three groups (50–52); the characteristics of male, female and napuṃsaka plants; their properties and uses (53); hunger, thirst and sleep occur in plants too;[457] the folding together (saṃkoca) of leaves is typical of sleep (54); the composition of plants in the terms of the five mahābhūtas (55); the parts of plants and the substances they contain (56); weights and measures according to the māgadha (57) and kāliṅga (58) systems.

The remaining part of the treatise is devoted to the diseases and their treatment, followed by two chapters on rasāyana and vājīkaraṇa. Each disease is discussed in two chapters: one on nidāna and one on treatment.

The order of the chapters is in general agreement with the *Mādhavanidāna.* The chapters on treatment contain many rasayogas and lohayogas.

The verses on nidāna reproduce in general the *Mādhavanidāna.* Material from other sources is added here and there,[458] while a number of stanzas accepted by Mādhava are left out. The order of the verses may vary too.

The chapter on jvara begins with a maṅgala addressed to the Pañcānana form of Śiva. It describes tandrā as a dangerous complication of saṃnipātajvara (jvaranidāna 18). The names of the thirteen saṃnipāta fevers are: sandhika, antaka, rugdāha(ka), citta(vi)bhrama, śītāṅga or śītagātra, tandrika, kaṇṭhakubja, karṇaka, bhugnanetra or bhugnadṛś, raktaṣṭhīvin, pralāpaka, jihvaka, and abhinyāsa (jvaranidāna 20). The duration of each of these fevers is mentioned (jvaranidāna 21). Six among them are curable: sandhika, tandrika, karṇaka, kaṇṭhakubjaka, jihvaka, and cittavibhraṃśa; the remaining seven run a lethal course (jvaranidāna 22). The descriptions of the symptoms of each of these fevers (jvaranidāna 23–35) agree with those found in the *Yogaratnākara.* Two different verses on dhātupāka occur (jvaranidāna 15 and 38); the verse on doṣapāka occurs twice (jvaranidāna 16 and 39). Śīta- and dāhajvara are dealt with twice (jvaranidāna 51 and 52). Jīrṇajvara is characterized (jvaranidāna 68). Two verses are devoted to gambhīrajvara (jvaranidāna 72–73). Many verses deal with signs indicating a fatal outcome (jvaranidāna 74–80). The fevers called madhurajvara and kṛṣṇamadhurajvara are described (jvaranidāna 83–84). The chapter on the treatment of fevers also deals with jvarātīsāra (jvararogacikitsā 153–160). The chapter on the nidāna of atisāra describes four types of pravāhikā: due to vāta, pitta, kapha and blood (atisāranidāna 18). The chapter on the nidāna of pāṇḍuroga, etc., describes pānakī (pāṇḍukāmalādiroganidāna 11). Chapters on the nidāna and treatment of somaroga are inserted between those on prameha and medoroga. The chapters on the nidāna and treatment of vraṇa deal with śārīra- and sadyovraṇa. The chapter on the treatment of upadaṃśa mentions phiraṅgaroga (upadaṃśarogacikitsā 20, 22, 23, 24, 25) and prescribes rasakarpūra (upadaṃśarogacikitsā 20). The chapters on yonivyāpatti also discuss mūḍhagarbha. A chapter on rasopadravas (hazards of using mercurial products) and vāridoṣa (disorders caused by corrupted water) is inserted between those on rasāyana and vājīkaraṇa. The chapter on vājīkaraṇa includes prescriptions

for stambhana, drāvaṇa and vaśīkaraṇa, as well as puṣpanivāraṇa.

An unusual name of a disorder is saṃgrahakoṣṭhadoṣa (vājīkaraṇa 15).

One of the names of opium, a repeatedly prescribed susbstance, is āphiṅga (vājīkaraṇa 46).

Religious elements are not infrequent at all in the prescriptions.[459]

The author does not reveal his name in the introductory stanzas; concluding verses are entirely absent.

The description of aṣṭasthānaparīkṣā points to a date later than Cāmuṇḍa's *Jvaratimirabhāskara*. The references to phiraṅgaroga and its treatment indicate that the *Dhanvantari* is later than Bhāvamiśra.

DHANVANTARICIKITSĀRṆAVA.[460]
DHANVANTARIGRANTHA.[461]
DHANVANTARIGUṆĀGUṆAYOGAŚATA.[462]
DHANVANTARIKAVACA.[463]
DHANVANTARIPAÑCAKA.[464]
DHANVANTARISAṂHITĀ.[465] Quoted in the *Pāradasaṃhitā*.
DHANVANTARISIDDHĀNTAŚIROMAṆI.[466]
DHANVANTARITANTRAŚIKṢĀ.[467]
DHANVANTARĪYAPATHYĀPATHYA.[468]
DHĀRĀKALPA.[469]
DHĀTRĪMAÑJARĪ.[470]
DHĀTUNIDĀNA.[471]
DINACARYĀ.[472]
DINACARYĀPADDHATI.[473]
DIVĀKARASAṂHITĀ.[474]
DIVYANIGHAṆṬA.[475]
DIVYASIDDHĀÑJANA.[476]
DIVYAUṢADHĪKALPA.[477]
DIVYAUṢADHINĀMAMĀLĀ.[478]
DIVYAUṢADHIPRAKARAṆA.[479]
DIVYAUṢADHIPRAKĀŚA.[480]
DIVYAUṢADHIVARṆANA.[481]
DOHADAPRAKĀRA.[482]
DOHADAPRAKĀŚA.[483]
DOṢĀDIVIJÑĀNĪYĀDHYĀYA.[484]
DRĀKṢĀDIKAṢĀYAVIDHĀNA.[485]
DRAVYĀBHIDHĀNA.[486]
DRAVYACIHNA.[487]
DRAVYAGUṆA.[488]
DRAVYAGUṆA or *Satkaṇṭharatna*.[489]
DRAVYAGUṆABHĀṢĀ.[490]
DRAVYAGUṆĀBHIDHĀNA.[491]
DRAVYAGUṆĀDARŚANIGHAṆṬU.[492]

DRAVYAGUṆĀDHIRĀJA.[493]
DRAVYAGUṆAKALPAVALLĪ.[494]
DRAVYAGUṆĀKARA.[495]
DRAVYAGUṆAKOŚA.[496]
DRAVYAGUṆAMUKTĀVALĪ.[497]
DRAVYAGUṆANIRŪPAṆA.[498]
DRAVYAGUṆA(PARI)BHĀṢĀ.[499]
DRAVYAGUṆAPĀṬHA.[500]
DRAVYAGUṆARATNĀVALI.[501]
DRAVYAGUṆASAṂGRAHA.[502]
DRAVYAGUṆASAṂKALANA.[503]
DRAVYAGUṆAŚATAKA.[504]
DRAVYAGUṆĀVALI.[505]
DRAVYAGUṆAVIMARŚA.[506]
DRAVYAGUṆAVIVEKA.[507]
DRAVYALAKṢAṆA.[508]
DRAVYAMUKTĀVALĪ.[509]
DRAVYANĀMAGUṆAKATHANA.[510]
DRAVYANĀMANIRṆAYA.[511]
DRAVYANIRṆAYANIGHAṆṬU.[512]
DRAVYANIŚCAYASĀRASAṂGRAHA.[513]
DRAVYANIŚCAYASĀRASAṂGRAHAGUṆAPĀṬHA.[514]
DRAVYAPADĀRTHAPRATINIDHI.[515]
DRAVYAPARĪKṢĀ.[516]
DRAVYAPARYĀYAGUṆĀKARA.[517]
DRAVYAPRAKĀŚA.[518]
DRAVYARATNĀKARA.[519]
DRAVYARATNĀKARA(NIGHAṆṬU).[520]
DRAVYARATNĀLAṂKĀRA.[521]
DRAVYARATNĀVALI or *-ratnāvalī*.[522]
DRAVYASAṂGRAHA.[523]
DRAVYASĀRASAṂGRAHA.[524]
DRAVYASĀRASVABHĀVA.[525]
DRAVYASIDDHI.[526]
DRAVYAŚUDDHI.[527]
DRAVYAŚUDDHIKRAMA.[528]
DRAVYAŚUDDHIVICĀRA.[529]
DRAVYAVAIŚEṢIKA.[530]
DRAVYĀVALĪNIGHAṆṬU.[531]
DRAVYAVINIRṆAYA.[532]
DUGDHAPĀNAVIDHI.[533]
DUḤKHĀRI.[534]
DŪTĀDHYĀYA.[535]
DŪTALAKṢAṆANIRŪPAṆA.[536]

DŪTAPARĪKṢĀ.[537]
DVĀDAŚĀRTHANIRŪPAṆA.[538]
DVĀDAŚAVĀRṢIKACIKITSĀ.[539]
EKADRAVYAVINIŚCAYA.[540]
EKĀKṢANĀLIKERAKALPA.[541]
EKĀKṢARĪNIGHAṆṬU.[542]
EKAMŪLIKĀPRAYOGA.[543]
ELEYĀṄKOLAKṚṢṆONMATTACŪRṆAVIDHĀNA.[544]
ERAṆḌAKALPA.[545]
ERAṆḌAPRAŚNA.[546]
GADANIGRAHA.[547]
GADANIRṆAYA.[548]
GADĀṄKUŚA or *Sarvajvaracikitsā*.[549]
GADARĀJARATNA.[550]
GADAVINODANIGHAṆṬU.[551]
GAṆANIGHAṆṬU.[552]
GAṆAPĀṬHA.[553]
GAṆAPĀṬHACIKITSĀKALIKĀ.[554]
GĀṆAPATYA.[555]
GAṆḌAMĀLĀDICIKITSĀ.[556]
GANDHAKALPA.[557]

GANDHAVĀDA,[558] an anonymous treatise on cosmetics and perfumery (gandhayukti or gandhaśāstra).

The treatise consists of ninety-three units, mostly comprising one to seven Sanskrit verses, accompanied by a Marāṭhī commentary. One unit (82) is devoid of a commentary; several units (17–18, 24–43, 59–76, 80, 86–93) are not accompanied by Sanskrit verses; two units consist of dohā verses in Marāṭhī. The treatise ends with a table of contents.[559]

The *Gandhavāda* gives a number of recipes of fragrant preparations for diverse uses. The commentary specifies the ratios of the ingredients and contains a translation of part of the Sanskrit verses.

Sources are not indicated; a few verses, however, agree literally with verses from Gaṅgādhara's *Gandhasāra*.[560]

Many of the preparations described are intended for use at a royal court.[561] A not inconsiderable number of them are provided with names; some are said to have been invented by divine authorities or kings.[562] The author incorporated a large number of formulae for the substances called bukā (units 10 and 24–42)[563] and javādi (units 5, 20–22, 46, 48).[564] The substances described were not only used as cosmetics and perfumes, but also to counteract diseases (units 23, 51, 77), for the purpose of vaśīkaraṇa (units 2 and 12), and for causing confusion in adversaries (mohana; unit 3).

Vernacular names of ingredients are rather common in the formulae.[565]

Noteworthy names of ingredients are: ambara (1, 4, 44, 45, 46, 48, 52, 55, 58, 78, 83, 84); berī (47, 50, 51, 52, 53, 54, 77, 84); berikā (55, 56, 83); dāracīnī (commentary 40 and 41); geru (2); kabāba (5); khobara (commentary 45); lobāna (very often, e.g., 1, 4–6, 10, 21–23, 44–47); mastaki (21); mleccha (58); sevantī (2); taja (23, 44–45, 48, 58, 78); tavakṣīra (7, 10).[566]

No particulars are available about the author. The quotations from Gaṅgādhara's *Gandhasāra* in the *Gandhavāda* establish that the latter treatise is posterior to the former. The references to Bhoja and Siṅghaṇa point to a date later than the first half of the thirteenth century, the period in which Siṅghaṇa, the Yādava king of Devagiri, lived. P.K. Gode[567] was of the opinion that the type of old Marāṭhī in the commentary of the *Gandhavāda* points to a period of composition between A.D. 1330 and 1550. R.T. Vyas, the editor of the text, expressed as his view that it would be more appropriate if the date were fixed between A.D. 1250 and 1300.[568] The profuse employment of substances, introduced in the Indian materia medica by the Muslims, proves that the work cannot be assigned to a period earlier than 1300. It may even date from a much later time, since the materia medica differs considerably from that employed by Gaṅgādhara in his *Gandhasāra*.

GAṆḌŪṢAPRAKARAṆA.[569]
GAṄGĀDHARA.[570]
GAṄGĀDHARACŪRṆANIRMĀṆAKRAMA.[571]
GAṄGĀDHARAYOGAVIDHI.[572]
GARBHACIKITSĀ.[573]
GARBHADHĀRAṆOPĀYAVIDHI.[574]
GARBHAPRASAVACIKITSĀ.[575]
GARBHAPUṢṬAPRAYOGA.[576]
GARBHARAKṢĀVIDHĀNA.[577]
GARBHASTHITYAUṢADHA.[578]
GARBHAVEDANĀPRATĪKĀRA.[579]
GARBHAYĀTANĀCIKITSĀ.[580]
GARBHIṆĪCIKITSĀ.[581]
GARBHIṆYĀDICIKITSĀ.[582]

GARBHOPANIṢAD.[583] This Upaniṣad, attributed to Pippalāda and therefore connected with the tradition of the *Atharvaveda*, is a short post-Vedic work in prose which deals with embryology. Its doctrines partly agree with those of āyurvedic treatises, partly differ from them.[584]

The series of seven elements of the body (dhātu) is said to consist of blood (śoṇita), muscular tissue (māṃsa), fatty tissue (medas), tendons (snāyu),[585] bones (asthi), bone marrow (majjā), and seed (śukra).[586] The six tastes (rasa) are those of āyurvedic theory. The skull is regarded as consisting of four flat bones (kapāla);[587] the number of vital spots is 107;[588] the number of junctures (sandhi) is 180;[589] the human body possesses 109 tendons (snāyu),[590] 700 vessels (śirā),[591] 500 majjās,[592] and 300 bones.[593]

The weight of the heart is eight, that of the tongue twelve pala. The body contains one prastha of bile,[594] one āḍhaka of phlegm, one kuḍava of semen,[595] and two prastha of fat.

GARUḌAPAÑCĀKṢARĪKALPA.[596]

The GARUḌAPURĀṆA[597] contains a number of chapters of medical interest.[598]

Chapter two mentions Garuḍa's desire to become a destroyer of the Nāgas (2.49: nāgadāraṇa). Chapter nineteen is about snakes, their bites, and mantras providing protection. Chapter twenty-seven consists of a long mantra said to destroy the poison of all kinds of venomous snakes. Chapter fifty is concerned with daily regimen. Chapters sixty-three and sixty-four describe bodily marks of men and women (narastrīlakṣaṇa), together with their predictive meaning. Chapter sixty-five deals with the same subject according to Samudra.[599] Chapter sixty-seven is about svarodayaśāstra, called pavanavijaya in the colophon.[600] Chapters sixty-eight to eighty are concerned with ratnaparīkṣā, the science dealing with precious and semi-precious stones;[601] their contents agree for the greater part with Buddhabhaṭṭa's *Ratnaparīkṣā*.[602]

Chapters 146–219 form a medical treatise that is sometimes called *Dhanvantarisaṃhitā*.[603] Chapters 146–167 consist of a Nidānasthāna that is closely related to the Nidāna section of the *Aṣṭāṅgahṛdayasaṃhitā* and *Aṣṭāṅgasaṃgraha*, and may be considered as a third version of the same material.[604] The chapters on nidāna are presented as being taught by Dhanvantari to Suśruta according to the expositions on the subject by Ātreya and other sages.[605] The views of Agniveśa and Hārīta are referred to in the chapter on fevers.[606] Disorders described in the Nidānasthāna of Vāgbhaṭa's works but omitted in the corresponding chapters of the *Garuḍapurāṇa* are svarabheda, mada, mūrchā and saṃnyāsa.[607]

Chapters 168–174 are a continuation of Dhanvantari's lessons to Suśruta.[608] These chapters are not said to be based on the views of Ātreya, but on a *Yogasāra*.[609] Chapter 168 deals with basic principles,[610] such as the three doṣas, the dhātus,[611] the tastes, vīrya,[612] vipāka, agni, disturbances of the digestive fire[613] and their treatment. Chapter 169 describes the medicinal properties of articles of food and drugs. Chapters 170 and 171 are concerned with the treatment of various diseases, and chapter 172 with that of women's and children's diseases,[614] rasāyana, and vājīkaraṇa.[615] Chapter 173 is about the properties and actions of groups of drugs. Chapter 174 describes various ghṛtas and tailas.

Chapters 175 to 196 consist of medical teachings expounded by Hari to Śiva. Chapter 175 is concerned with the treatment of fevers. Chapters 176 to 193 describe treatments for all sorts of diseases. The contents of these chapters differ considerably from those in which Dhanvantari speaks to Suśruta. Many features point to Tantric influence, for example the large number of mantras[616] and the repeatedly described magical procedures.[617] Chapter 184 mentions the killing (māraṇa) of mercury (rasa; 184.18) and the making of artificial silver and gold (184.19). Chapter 194 is about the vaiṣṇava kavaca which keeps off all diseases, and chapter 195 about a mantra that grants everything one desires. Chapter 196 describes the viṣṇudharmavidyā which enabled Indra to overcome all his adversaries.

Chapter 197 deals with the gāruḍa or gāruḍī vidyā, given by Sumitra (in the beginning of the chapter) or Garuḍa (at the end of the chapter) to Kaśyapa, a vidyā which neutralizes the effects of all kinds of poison.[618] Dhanvantari is the speaker again in

chapter 197.

Chapter 210 deals with the medical treatment of horses and elephants.

Chapter 202 forms a short nighaṇṭu, being an enumeration of the names of medicinal plants and other drugs, together with a number of their synonyms.[619]

Chapter twenty-two of the Uttarakhaṇḍa or Pretakalpa of the *Garuḍapurāṇa*[620] consists of an interesting small treatise on the embryological development of a human being, expounded by Viṣṇu to Garuḍa.[621]

The contents deviate in many respects from what is found on the same subject in āyurvedic treatises.[622] Sexual intercourse is not allowed on the first four days of the menstrual cycle.[623] The developmental stages of the embryo are called kalika (first to fourth day),[624] budbuda (fifth to ninth day), the stage of the development of māṃsa (tenth to nineteenth day),[625] and the stage of the development of ghanamāṃsa (twentieth to twenty-fourth day); from the twenty-fifth day onwards bala and puṣṭi are said to increase (22–23). At the end of the first month of pregnancy the five tattvas are present; the second month is characterized by the development of skin (tvacā) and fatty tissue (medas); bone marrow and bones come into being in the third month, the hair of the head, as well as the ankles (gulpha), in the fourth, ears, nose and the lateral parts of the abdomen (kukṣi) in the fifth, the throat, opening of the skull (randhra) and back (pṛṣṭha) in the sixth, and the sexual organs (guhya) in the seventh month; all the major and minor parts of the body are present from the eighth month onwards (24–26).[626]

Bodily constituents, bodily functions, mental processes, etc.,[627] derived from the five mahābhūtas, are enumerated as follows: skin, bones, vessels (nāḍyaḥ), body hair and muscles derive from earth, saliva, urine, semen, bone marrow and blood from water, hunger, sleep, thirst, want of energy (ālasya) and beauty (kānti) from fire, running (dhāvana), breathing (śvasana), contraction (ākuñcana), extension (prasāraṇa) and inhibition (nirodha), as well as love (rāga), hate (dveṣa), shame, fear and confusion derive from wind, the production of sounds (ghoṣa), the apertures of the body (chidra), a deep voice(?) (gāmbhīrya), hearing (śravaṇa), and sarvasaṃśraya(?) derive from space (30–36).[628]

The names of the ten chief nāḍīs are: Iḍā, Piṅgalā, Suṣumnā, Gāndhārī, Gajajihvā, Pūṣā, Yaśā, Alambuṣā, Kuhū, and Śaṅkhinī (38–39).[629] Ten kinds of vāyu are enumerated: prāṇa, apāna, samāna, udāna, vyāna, nāga, kūrma, kṛkara, devadatta, and dhanañjaya (40–41).[630] The number of hairs on the body is said to be thirty-five millions,[631] and that of the hairs on the head three hundred thousand (47–48).[632] The quantities of a series of constituents of the body are as follows: one thousand pala of muscular tissue, one hundred pala of blood (rakta), ten pala each of fat and skin, twelve pala of bone marrow, three pala of mahārakta,[633] two kuḍava of semen, one kuḍava of śoṇita,[634] and six kuḍava and a half of phlegm, faeces and urine (48–51).[635] A long series of verses (52–66) is devoted to the parallelism between macro- and microcosm; numerous parts of the human body are equated with parts of the macrocosm.[636]

The *Garuḍapurāṇasāroddhāra* of Naunidhirāma[637] mentions a disease called lūtā;[638] twelve kinds of bodily excretions (mala) are enumerated.[639]

Sources of the medical chapters of the *Garuḍapurāṇa* are, apart from the *Aṣṭāṅgahṛdayasaṃhitā*: the *Cakradatta*, Ravigupta's *Siddhasāra* and Vṛnda's *Siddhayoga*.[640]

Some medical treatises quoting the *Garuḍapūrāṇa* (or Gāruḍa) are Aghoranātha's commentary on his *Bhiṣaksarvasva* and Vaidyarāja's *Sukhabodha*.

GĀRUḌOPANIṢAD.[641] This short Upaniṣad, belonging to the *Atharvaveda*, deals with the gāruḍabrahmavidyā, a mantra effective against the effects of the bite of venomous animals, in particular snakes. This vidyā was given by Brahmā to Nārada, who transmitted it to Bṛhatsena; the latter passed it down to Indra, Indra to Bharadvāja, Bharadvāja to his pupils.

The names of many divine serpents are mentioned, as well as numerous venomous animals.[642]

GĀYAMANTRA(?).[643]
GHAṆṬĀKARṆAMANTRAKALPA.[644]
GHṚTACŪRṆATAILANIRMĀṆAVIDHĀNA.[645]
GHṚTĀDHIKĀRA.[646]
GHṚTĀDIYOGA.[647]
GHṚTANIDĀNA.[648]
GHṚTAPRAKARAṆA.[649]
GHṚTARASĀYANACŪRṆAPRAYOGA.[650]
GHṚTARASĀYANALEHYĀÑJANANIRMĀṆAVIDHI.[651]
GHṚTASARVASVA.[652]
GHṚTASIDDHI.[653]
GHṚTATAILĀTISĀRAVṚDDHILAKṢAṆA.[654]
GHṚTAVAṬAKAGUGGULAVIDHĀNA.[655]
GHṚTAVIDHĀNA.[656]
GHṚTAYOGAVIDHI.[657]
GOPASAṂHITĀ.[658]
GOROCANĀKALPA.[659]
GOVINDASOMASETU.[660]
GRAHAṆĪKAVĀṬA.[661]
GRAHAṆĪSŪTIKĀVĀYUPRAMEHACIKITSĀ.[662]
GRAHAṆYATISĀRACIKITSĀ.[663]
GUḌAKŪṢMĀṆḌAPĀKA.[664]
GUDASRĀVAROGA.[665]
GUḌŪCĪKALPA.[666]
GUḌŪCYĀDINIGHAṆṬU.[667]
GŪḌHĀRTHAPRAKĀŚA.[668]
GUGGULUNIRŪPAṆA.[669]
GUGGULUVAṬAKANIRMĀṆACIKITSĀVIDHI.[670]
GULMACIKITSĀVIDHĀNA.[671]
GUṆACINTĀMAṆI.[672]
GUṆĀDARŚA.[673]
GUṆAGAṆA.[674]
GUṆĀGUṆAGRANTHA.[675]

GUṆĀGUṆAŚATAŚLOKĪ.[676]
GUṆAJÑĀNA.[677]
GUṆAJÑĀNANIGHAṆṬU.[678]
GUṆAKARMANIRDEŚA.[679]
GUṆAMĀLĀ.[680]
GUṆAMAÑJARĪ.[681]
GUṆANIGHAṆṬU.[682]
GUṆAPAṬALA.[683]
GUṆAPĀṬHA.[684]
GUṆAPĀṬHAKĀVYA.[685]
GUṆARATNĀKARA.[686]
GUṆARATNAMĀLĀ.[687]
GUṆAYOGAPRAKĀŚA.[688]
GURUYĀMALA.[689]
GUṬIKĀDHIKĀRA.[690]
GUṬIKĀDHYĀYA.[691]
GUṬIKĀLAVAṆAVIDHĀNA.[692]
GUṬIKĀPRAKĀRA.[693]
GUṬIKĀPRAYOGA.[694]
HANUMANNIGHAṆṬU.[695]
HARAPRADĪPIKĀ.[696]
HARICAKRA.[697]
HARIDRĀROGANIDĀNA.[698]
HARĪNDRAVAIŚEṢIKA.[699]
HARĪTAKĪBHEDA.[700]
HARĪTAKĪKALPA.[701]
HARITĀLAKALPA.[702]
HĀRĪTAVYUTPATTI.[703]
HASTAVRAṆANETRAROGAUṢADHANIRMĀṆAVICĀRA.[704]
HETUPRADĪPIKĀ.[705]
HITOPADEŚAVAIDYAKASAMŪHAŚĀSTRA.[706]
INDRAGRANTHA RASĀYANAPRAKARAṆA.[707]
INDRAVALYAIRAṆḌATAILACIKITSĀ.[708]
INDRAVĀRUṆĪKALPA.[709]
ĪŚVARĪKALPA.[710]
JAGATPRAKĀŚA.[711]
JALĀDIGUṆAPĀṬHAVIṢAYA.[712]
JALAMĀNUṢĀDITANTRA.[713]
JAMBĪRADĀḌIMABĪJASAṂKHYĀ.[714]
JĀṄGULĪVIDYĀ.[715]
JARĀCIKITSĀ.[716]
JAYAPĀLAKALPA.[717]
JAYAPARĀJAYARATNA.[718]
JIHVOPAJIHVĀROGACIKITSĀ.[719]

JINASĀRASAṂGRAHA.[720]
JĪRṆAKĀLAPRAMĀṆA.[721]
JĪRṆAKĀRICŪRṆANIRMĀṆĀVIDHI.[722]
JĪRṆAKRAMANIRṆAYA.[723]
JĪRṆAMAÑJARĪ.[724]
JĪRṆASAṂKHYĀ.[725]
JĪRṆASAṂKHYĀVIVARAṆA.[726]
JĪVANTĪPĀKA.[727]

The anonymous[728] JÑĀNABHĀSKARA[729] is an extensive work, in the form of a dialogue between Sūrya and his charioteer Aruṇa, on karmavipāka, which means that it regards illness as the result of morally wrong actions in previous lives. The descriptions of the diseases are sometimes very detailed; their cure rests entirely on religious observances. The introductory part of the treatise is about astronomical and astrological subjects.[730]

The *Jñānabhāskara* is earlier than the sixteenth century since one of the MSS dates from about A.D. 1500.[731]

A commentary (ṭīkā) on this work was written by Panto Bhaṭṭa, son of Lakṣmaṇa Bhaṭṭa.[732]

JÑĀNĀRṆAVA.[733]
JVARACIKITSĀ.[734]
JVARACIKITSITA.[735]
JVARĀDĀNANIDĀNA.[736]
JVARĀDHIKĀRA.[737]
JVARĀDHIKĀRASAṂGRAHA.[738]
JVARĀDHYĀYA.[739]
JVARĀDICIKITSĀ.[740]
JVARĀDICIKITSĀPRAKĀŚA.[741]
JVARĀGHĀTAMAHIMAN, also called *Jvarapratīkāra*.[742]
JVARAHARACŪRṆANIRMĀṆAVIDHI.[743]
JVARAKALPA.[744]
JVARAKAṢĀYA.[745]
JVARALAKṢAṆA.[746]
JVARALAKṢAṆĀDI.[747]
JVARANIDĀNA.[748]
JVARAPADDHATI.[749]
JVARAPATHYĀPATHYAVIDHI.[750]
JVARAPRATĪKĀRA. See *Jvarāghātamahiman*.
JVARAROGAKALPA.[751]
JVARAROGAKAPHA.[752]
JVARASAMUCCAYA.[753]
JVARASAMUCCAYADARPAṆA.[754]
JVARAŚĀNTI.[755]

JVARAŚĀNTIVIDHI.[756]
JVARAŚATAŚLOKĪ.[757]
JVARAUṢADHA.[758]
JVARĀVALĪ.[759]
JVARAVIMUKTIDINANIRṆAYA.[760]
JVARAVIVECANA.[761]
JYOTIṢMATĪKALPA.[762]
JYOTSNIKĀ.[763]
KĀKAJAṄGHĀKALPA.[764]
KĀKAPARĪKṢĀ.[765]
KĀLAJÑĀNA.[766]
KĀLAJÑĀNAVIDHĀNA.[767]
KĀLIKĀGRANTHA.[768]
KĀLAMĀRĪKALPA.[769]
KALIṄGĀDIGHṚTANIRMĀṆAVIDHI.[770]
KALKADRAVYASAMUCCAYA.[771]
KALLOLINĪ.[772]
KALPABHŪṢAṆA.[773]
KALPACINTĀMAṆI.[774]
KALPADRUMANIGHAṆṬU.[775]
KALPAKHAṆḌA.[776]
KALPALATĀ.[777]
KALPANĀSĀGARA.[778]
KALPAPRAKARAṆA.[779]
KALPARATNA.[780]
KALPASĀGARA.[781]
KALPASAṂGRAHA.[782]
KALPASĀRA.[783]
KALPASINDHU.[784]
KALPATARU.[785]
KALPAUṢADHISEVĀDIPRAKĀRA.[786]
KALPĀVALĪ.[787]
KALPAVALLĪ.[788]
KALYĀṆAGHṚTA.[789]
KALYĀṆASAṂGRAHA.[790]
KALYĀṆATANTRA.[791]
KĀMABHŪTA(?).[792]
KĀMADHENU.[793]
KĀMARATNĀKARA.[794]
KĀMILĀVYĀDHIMANTRACIKITSĀ.[795]
KĀṄKĀYANAVAṬAKĀ.[796]
KĀNTĀPATTRAPARĪKṢĀVIDHĀNA.[797]
KAṆṬHAVAIDYA.[798]
KAPARDIKĀKALPA.[799]

KAPHACIKITSĀ.[800]
KAPHĀTISĀRACIKITSĀ.[801]
KAPILASIDDHĀNTA.[802]
KAPIÑJALATANTRA.[803]
KAPITTHĀṢṬAKABHĀGAYOJAKASŪTRA.[804]
KARAKAKALPA.[805]
KĀRAṆĀNUGUṆACIKITSĀKRAMA.[806]
KARAÑJAKAKALPA.[807]
KARAÑJAKALPĀDI.[808]
KARMADĪPAVṚTTI.[809]
KARMASAṂBHAVA.[810]
KARMAVIPĀKA.[811]
KARMAVIPĀKAKĀṆḌA.[812]

KARMAVIPĀKASAṂHITĀ.[813] This work, in the form of a dialogue between Śiva and Pārvatī, teaches, like the *Vṛddhasūryāruṇasaṃvāda*, through examples. The text describes the lives of individuals born when the moon is in each of the 108 'feet' or quarter-parts of the nakṣatras, traces their incarnations down to the present one, describes the ripening of their karman in this life, including diseases, and discloses the prāyaścitta or śānti rituals by which they may be cured of their ills. The earliest known MS dates from A.D. 1726.[814]

KARMAVIPĀKASŪCĪ.[815]
KARṆAŚŪLACIKITSĀ.[816]
KARṆIKĀDINIRṆAYA.[817]
KARPŪRĀDICŪRṆARACANĀVIDHĀNA.[818]
KARPŪRAPRAKĀŚA.[819]
KĀSANIDĀNA.[820]
KĀSĀRASAMUCCAYA.[821]
KĀSAROGĀDĀNANIDĀNACIKITSĀKRAMA.[822]
KĀSAROGANIDĀNA.[823]
KAṢĀYACIKITSĀ.[824]
KAṢĀYACŪRṆAMĀTRĀYOGA.[825]
KAṢĀYĀDIPĀKAVIDHI.[826]
KAṢĀYĀDIPRAYOGĀḤ.[827]
KAṢĀYARASĀYANĀDINIRŪPAṆA.[828]
KAṢĀYAVIDHĀNĀNI.[829]
KĀŚĪRĀJASAṂHITĀ.[830]
KAṢṬĀVALĪ.[831]
KASTŪRĪNIRṆAYA.[832]
KASTŪRĪPARĪKṢĀ.[833]

KĀŚYAPASAṂHITĀ[834] or *Kāśyapīya Garuḍapañcākṣarīkalpa*:[835] a Tantric work on toxicology, related to Nārāyaṇa's *Tantrasārasaṃgraha*.

The treatise, composed in the form of a dialogue between Kāśyapa, called Brahmaputra,[836] and his pupil Gautama,[837] consists of 853 verses, arranged in thirteen chapters (adhyāya).

The subjects dealt with in these chapters are: (1) ṛṣyādimudrābījapiṇḍasaṃjñāpadādimantragaṇavidhi, on mantraśāstra; (2) dhyānavidhi; (3) (mantra)viniyogavidhi, i.e., rules on the application of mantras for various purposes, many of which belong to the realm of ṣaṭkarman, such as śānti, puṣṭi, rakṣā, vaśya, ākarṣaṇa, vijaya, uccāṭana, etc.;[838] among the diseases to be counteracted mention is made of jvara, rājayakṣman, prameha, mahodara, gulma, śūla, masūrikā, visarpikā, and raktasrāva, as well as of disorders occurring in domestic animals (3.12–16); (4) nāgopadravādilakṣaṇavidhi, on the five types of poison (4.3cd–4ab),[839] the eight chiefs of the nāgas (divyoraga; 4.6 and 8–19), and the four classes of ordinary (prākṛta) snakes (darvīkara, maṇḍalin, rājila and vaitaka; 4.7 and 20–26ab),[840] their bites, the characteristics of these bites and their symptoms (4.41–62), and finally the seven stages of the effect of poisons (viṣavega; 4.63–68); (5) viṣasaṃhārādimantrayantraprayogavidhi, on counteracting the effects of poisons by means of mantras and yantras; (6) sarpakrīḍālakṣaṇādividhi, on the localizations of snake-bites (6.1–7), the collection of drugs (6.8–19), the attraction of serpents into one's presence by magic formulae (nāgākṛṣṭi; 6.20–35), their eradication (uccāṭana; 6.36–48), and other forms of 'play' (krīḍā) with serpents; (7) on mantras destroying the effect of snake venom; (8) darvīkaraviṣacikitsā, on the bites of darvīkara snakes, their symptoms and treatment; (9) maṇḍaliviṣacikitsā, the same with respect to maṇḍalin snakes; (10) rājilaviṣacikitsā, the same with respect to rājila snakes; (11) mūṣikacikitsā, on the bites of rats and their treatment; (12) viṃśatividhanānāviṣacikitsā, on the treatment of the bites of the twenty kinds of spiders (12.1–11ab), the bites of scorpions (12.11cd–17ab), asses, horses, tigers, bears, cats, etc., (12.21cd–42), sthāvaraviṣa (12.43–58), dūṣīviṣa (12.59–60), hemaviṣa (12.61), and bhallātakaviṣa (12.62);[841] (13) abhiṣekayantradhāraṇavidhi, on consecration and the worship of yantras.

Some parts of the *Kāśyapasaṃhitā* are very similar to or almost identical with chapters of Nārāyaṇa's *Tantrasārasaṃgraha*.[842]

The author of the work is unknown. Its date cannot be established with certainty and depends on that of the *Tantrasārasaṃgraha*.

KĀŚYAPASAṂHITĀ.[843]
KĀŚYAPASAṂHITĀ.[844]
KĀŚYAPASAṂHITĀ.[845]
KĀŚYAPĪYAROGANIDĀNA.[846]
KAṬUKAROHIṆĪKALPA.[847]
KAUTUKACINTĀMAṆI.[848]
KAUTUKANIRŪPAṆA(?) or *Kautukaprayoga*(?).[849]
KAUTUKARATNĀVALI.[850]
KAUTUKASĀRODDHĀRA or *Rājavinoda*.[851]
KAUTUKAYOGA.[852]
KĀYĀGNIRAKṢAṆA.[853]

KEŚARAÑJANA.[854]
KHALVALAKṢAṆAVICĀRA.[855]
KHAṆḌĀMALAKAMĀTULUṄGARASĀYANANIRMĀṆAVIDHI.[856]
KIRĀTA.[857]
KOLAHASAṂHITĀ.[858]
KRAVYĀDIVYĀKHYĀNA.[859]
KRIYĀKALĀPAGUṆOTTARA.[860]
KṚṢṆADHATTŪRAKALPA.[861]
KṚṢṆAGUṆAPĀṬHA.[862]
KṚṢṆAHARIDRĀKALPA.[863]
KṚṢṆĀMALAKAGOPĪCŪRṆA.[864]
KṚṢṆĀPARĀJITĀKALPA.[865]
KṚTRIMAKOLĀHALA.[866]
KṚTRIMANIDĀNA.[867]
KṢĀRAKAUTUKĪ.[868]
KṢAYACIKITSĀ.[869]
KṢAYAMEHALAKṢAṆA.[870]
KṢAYANIDĀNACIKITSĀ.[871]
KṢAYAROGANIDĀNA.[872]
KṢĪṆASVASTHAVĀTAPITTAŚLEṢMALAKṢAṆA.[873]

KUCIMĀRATANTRA:[874] a short Tantric treatise on vājīkaraṇa and related subjects.

The work consists of about 165 verses, arranged in eight chapters (paṭala), to which a pariśiṣṭa of six verses has been added.

After a maṅgala and a verse enumerating the subjects of the treatise, chapter one gives recipes which increase the size and firmness of the penis in men and those of the breasts and buttocks in women; some of the formulae also mention an increase of the size of the ears and arms. Chapter two describes the preparation of ointments which promote sexual pleasure in both partners. Chapter three is about vaśīkaraṇa (subjugation, i.e., making women into willing partners in sexual intercourse) of women of various types[875] and mantras to be muttered in order to achieve this end; powders to be scattered over the head and potions with the same effect are also described. Chapter four is about vājīkaraṇa (aphrodisiacs), chapter five about drāvaṇa (the captivation of women) and stambhana (recipes which delay or prevent ejaculation), chapter six about kanyākaraṇa (tightening of the vagina), chapter seven about vandhyākaraṇa (abortifacients and contraceptives), and chapter eight about lomaśātana (recipes which make the vulvar region glabrous) and prasava (recipes which ensure impregnation). The pariśiṣṭa verses contain a lomanāśana recipe (which removes pubic hair) and two formulae which assure the birth of a son, even in an infertile woman.

Kucumāra is referred to in Vātsyāyana's *Kāmasūtra* (I.1.12) as the expounder of the seventh section, called Aupaniṣadika, of Bābhravya's abbreviated version of the original *Kāmasūtra*.[876]

Noteworthy is the use of the terms indrī for penis (4.13) and seṭaka[877] for a particular weight or measure (7.5). A few vernacular words are employed to designate medicinal plants, for example, kalaujī (7.14) and kāyaphala (7.14).

No particulars are known with regard to the author and the date of the work.

KUÑCALĀVAṬIKĀ.[878]
KUṆḌALĪPHALASĀRALEHYAVIDHĀNA.[879]
KŪṢMĀṆḌAGHṚTANIRMĀṆAVIDHI.[880]
KUṢṬHACIKITSĀ.[881]
KUṬAJĀDILEHYAVIDHI.[882]
KVĀTHĀDHIKĀRA.[883]
KVĀTHASAṂGRAHA.[884]
LAGHUCIKITSĀ.[885]
LAGHUCIKITSĀCINTĀMAṆI.[886]
LAGHUCIKITSĀSĀRA.[887]
LAGHURATNĀKARA.[888]
LAGHUSAṂGRAHA.[889]
LAGHUVAIDYA.[890]
LAGHUVAIDYASĀRA.[891]
LAKṢMAṆĀKALPA.[892]
LAṄGHANALAKṢAṆA.[893]
LĀṄGŪLĪKALPA.[894]
LEHACINTĀMAṆI.[895]
LEHYAGHṚTASĀRA.[896]
LEHYAVIDHĀNA.[897]
LIṄGADRĀVAKARAUṢADHANIRMĀṆA.[898]
MADAMŪRCHĀROGANIDĀNACIKITSĀ.[899]
MADANANIGHAṆṬU.[900]
MĀDHAVANIDĀNĀNUSĀRACIKITSĀ.[901]
MADHUKARAKALPA.[902]
MADHURACIKITSĀ.[903]
MADHUSNEHARASĀYANAKRAMA.[904]
MADHUSNUHIRASĀYANAVIDHI.[905]
MAHĀNĀRĀYAṆATAILAVIDHI.[906]
MAHĀPAÑCĀRKATAILAVIDHĀNA.[907]
MAHĀRALAPĀDIYOGA.[908]
MAHĀROGANĀMĀVALI.[909]
MAHAUṢADHAPRAVAṆĀŚIRVĀDA.[910]
MAHAUṢADHINIRMĀṆOPAYOGAVICĀRA.[911]
MAHĀVYĀDHINIVĀRAKAUṢADHANIRMĀṆAVIDHI.[912]
MAHODARAUṢADHAVIDHI.[913]
MALAKAṄGANĪVIDHI.[914]
MALAMAVIDHI.[915]
MALAMŪTRAPARĪKṢĀ.[916]
MALAYĀLAVAIDYA.[917]
MALŪKACANDRIKĀ.[918]

MĀṂSAMAṆḌŪRAPĀṬHĀVAKRAHARĪTAKĪNIRMĀṆAVIDHI.[919]
MĀṆḌALYĀDILEHYAYOGA.[920]
MAṆḌŪKABRAHMAKALPA.[921]
MAṆḌŪKABRĀHMĪKALPA.[922]
MAṄGALAVIDYĀ.[923]
MAṆIPARĪKṢĀDĪNI.[924]
MAÑJARĪ.[925]
MANORAMĀ.[926]
MANORAMAYOGAGRANTHA.[927]
MANTRACIKITSĀ.[928]
MANTRATANTRAUṢADHACIKITSĀ.[929]
MĀRJĀRĪKALPA.[930]
MARMACIKITSĀ.[931]
MASŪRIKĀŚĪTALĀDHIKĀRA.[932]
MAYŪRAŚIKHĀKALPA.[933]
MEHABHEDAPRABHEDĀDĀNANIDĀNA.[934]
MEHACIKITSĀ.[935]
MEHANIDĀNA.[936]
MEHĀNTAKACŪRṆAVIDHĀNA.[937]
MEHAROGANIDĀNA.[938]
MEHAUṢADHAPATHYAVICĀRA.[939]
MEHAVYĀDHYAUṢADHANIRMĀṆAKRAMA.[940]
MODAKĀRṆAVA.[941]
MOHINYAUṢADHAVIDHI.[942]
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MŪTRĀDIPARĪKṢĀ.[956]
MŪTRAKṚCCHRACIKITSĀ.[957]
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MŪTRAKṚCCHRANIDĀNA.[959]
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NĀNĀKAṢĀYAKALKANIRMĀṆAKRAMA.[969]
NĀNĀRASAVIVEKA.[970]
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NĀRĀYAṆAKALKAVIDHĀNA.[991]
NĀRIKELĀÑJANA.[992]
NASYADHŪPAVICĀRA.[993]
NASYAVIDHI.[994]
NAVAKAPARĪKṢĀ.[995]
NAVAPATTRACIKITSĀ.[996]
NAYABODHIKĀ.[997]
NAYANASUKHA.[998]
NETRACANDRODAYA.[999]
NETRĀMAYAVICĀRA.[1000]
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NIDĀNASĀRA.[1011]
NIDĀNASĀRASAṂGRAHA.[1012]
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NIGHAṆṬU.[1019]
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NIGHAṆṬUMĀLĀ.[1021]
NIGHAṆṬUNĀMĀVALĪ or *-āvali*.[1022]
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NIGHAṆṬUVAIDYAKAŚĀSTRA.[1027]
NĪLAKAṆṬHAVAIDYAKA.[1028]
NIMBAKALPA.[1029]
NIRGUṆḌĪKALPA.[1030]
NIṢKAPRAMĀṆANIRṆAYA.[1031]
NṚSIṂHASAṂHITĀ.[1032]
NŪTANAKALPA.[1033]
NŪTANAVIDHI.[1034]
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PADĀRTHAŚUDDHI.[1042]
PADĀRTHAVIJÑĀNA.[1043]
PADYĀMṚTAMĀLĀ.[1044]
PAITTYABHEDĀḤ.[1045]
PAITTYAROGĀDĀNANIDĀNA.[1046]
PALĀŚAKALPA.[1047]
PĀMĀCIKITSĀ.[1048]
PĀNAVIDHI.[1049]

PAÑCAKARMAVICĀRA.[1050]
PAÑCAKARMAVIDHI.[1051]
PAÑCAMAVILĀSA.[1052]
PAÑCĀṄGANIMBAKALPA.[1053]
PAÑCANIDĀNAṬIPPAṆĪ.[1054]
PAÑCĀRKATAILANIRMĀṆAVIDHI.[1055]
PAÑCAŚATAYOGĀḤ.[1056]
PAÑCĀṢṬAKARMAṆOR VICĀRAḤ.[1057]
PAÑCAVIṂŚAKAṬĪKĀ.[1058]
PĀṆḌUROGACIKITSĀ.[1059]
PĀṆḌUROGĀDĀNACIKITSĀ.[1060]
PĀṆḌUROGANIDĀNA.[1061]
PARĀKṚTA-(PRĀKṚTA-?)VAIDYĀDIGUṬIKĀ.[1062]
PARAṄGYĀDICŪRṆAVIDHI.[1063]
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PARĪKṢĀVIDHĀNA.[1069]
PARIMALAPĀRIJĀTA.[1070]
PARYĀYAMAÑJARĪ.[1071]
PARYĀYAMUKTĀVALĪ or *Muktāvalī*.[1072]
PARYĀYAPĀṬHA.[1073]
PARYĀYARATNAMĀLĀ.[1074]
PARYĀYĀRṆAVA.[1075]
PĀṬADĀ.[1076]
PĀTAÑJALATANTRA.[1077]
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PĀṬHĀTAKRAHARĪTAKĪYOGA.[1079]
PĀṬHAUṢADHI.[1080]
PATHYĀPATHYA.[1081]
PATHYĀPATHYA, DHANVANTARĪYA-.[1082]
PATHYĀPATHYADEŚAVICĀRA.[1083]
PATHYĀPATHYĀDHIKĀRA.[1084]
PATHYĀPATHYĀDINIRṆAYA.[1085]
PATHYĀPATHYADRAVYAGUṆAVARṆANA.[1086]
PATHYĀPATHYANIGHAṆṬA.[1087]
PATHYĀPATHYANIGHAṆṬU.[1088]
PATHYĀPATHYANIRṆAYA.[1089]
PATHYĀPATHYASAṂGRAHA.[1090]
PATHYĀPATHYASARVAROGĀDHIKĀRA.[1091]
PATHYĀPATHYAVARGA.[1092]

PATHYĀPATHYAVICĀRA.[1093]
PATHYĀPATHYAVIDHĀNA.[1094]
PATHYĀPATHYAVIDHI.[1095]

PATHYĀPATHYAVINIŚCAYA,[1096] a compilation on beneficial (pathya) and harmful (apathya) therapeutic measures, diet, etc., in various diseases.

After a series of introductory verses and an exposition on the purpose of the book and its subjects, including general observations on the nature and importance of pathya and apathya, the author proceeds to describe beneficial and harmful therapeutic measures in a long series of diseases, arranged in the same order as in the *Cakradatta*.[1097] The elements of therapy discussed are not restricted to articles of diet and drugs, but also comprise pañcakarman, bloodletting, cauterization, surgical interventions, etc.

Sources are not indicated by the author, but the main source may have been the *Cakradatta*.[1098] Some verses have been borrowed from Caraka.[1099]

The *Pathyāpathyaviniścaya* is said to be quoted by Śivadāsasena; it was extensively used by the author of the *Yogaratnākara*, a work that even quotes the introductory verse with the title of the treatise.[1100]

Some remarkable items of the materia medica are ahiphena, kumārī, methī, payaḥpeṭī,[1101] vajravallī,[1102] and vijayā.[1103]

The presence of a number of vegetables and fruits which are prevalent in Bengal, such as hilamocikā, kañcaṭa, nāḍīca, śāliñca, and suniṣaṇṇaka, indicates that the treatise was written in that region. Most of the MSS do not mention the name of the author, but some ascribe it to Dakṣarūpa, Mādhavakara, or Śivadāsa.[1104]

The materia medica points to a period later than the twelfth century. The treatise antedates the fifteenth century if Śivadāsasena was indeed acquainted with it.

PATHYĀPATHYAVIVEKA.[1105]
PATHYAVARGA.[1106]
PATHYAVICĀRA.[1107]
PATHYAVIDHĀNA.[1108]
PAṬṬIPRAKĀŚA.[1109]
PAUṢṬIKAUṢADHAGUṬIKĀ.[1110]
PĪNASALAKṢAṆACIKITSĀVIDHI.[1111]
PIṆḌASIDDHI.[1112]

PIṆḌOPANIṢAD.[1113] This Upaniṣad describes how a new human being arises thanks to the offering of piṇḍas to a deceased ancestor. The first piṇḍa results in the formation of the kalās of the new body, the second in the formation of muscles (māṃsa), skin and blood; the third piṇḍa makes the mati arise, the fourth causes the formation of bones and bone marrow, the fifth the formation of hands, fingers, head and mouth, the sixth the formation of heart, throat and palate; the seventh piṇḍa endows the new being with āyus; the eighth gives it a voice, the ninth endows it with all the senses, and the tenth with the bhāvas.

PIṆḌOTPATTISAṂGRAHA.[1114]
PIPPALYĀDIGHṚTA.[1115]
PIPPALYĀDIRASĀYANA.[1116]
PIŚĀCAVIJAYA.[1117]
PITTAJVARAKAṢĀYAVIDHĀNA.[1118]
PITTĀTISĀRACIKITSĀ.[1119]
PITTAVĀYUVINĀŚAKACŪRṆA.[1120]
PRABHĀVATĪGUṬIKĀKALPA.[1121]
PRABHĀVATĪKALPA.[1122]
PRABHĀVATĪMĀTRĀVIDHI.[1123]
PRABHĀVATĪVAṬAKAVIDHI.[1124]
PRABHĀVATĪVARTIVIṢAMAṢĪTAILAVIDHĀNA.[1125]
PRADARAROGACIKITSĀVIDHI.[1126]
PRAKĪRṆAKAPADYĀDI.[1127]
PRAKĪRṆAVAIDYASAṂGRAHA.[1128]
PRĀKṚTACIKITSĀRṆAVA.[1129]
PRAKṚTILAKṢAṆA.[1130]
PRAKṚTIVIVECANADĪPA.[1131]
PRAMEHACIKITSĀ.[1132]
PRAMEHĀDHIKĀRA.[1133]
PRAMEHĀDICIKITSĀ.[1134]
PRAMEHANIDĀNA.[1135]
Prāṇasukha.[1136]
PRASAṄGARATNĀVALI.[1137]
PRASAVAVEDANĀPARIHĀRAVIDHI.[1138]
PRASAVAVIKṚTIŚĀNTI.[1139]
PRASŪTICIKITSĀ.[1140]
PRASŪTIKĀROGANIDĀNA.[1141]
PRATIMARŚA.[1142]
PRAYOGACINTĀMAṆI.[1143]
PRAYOGAKAṆṬHĀBHARAṆA.[1144]
PRAYOGAMĀLĀ.[1145]
PRAYOGĀMṚTA.[1146]
PRAYOGASĀRA.[1147]
PRAYOGAVIJAYASĀRĀVALĪ.[1148]
PURĀTANAYOGASAṂGRAHA.[1149]
PURUṢĀRTHAPRABODHA.[1150]
PUṢPADRĀVAKAVIDHĀNA.[1151]
PŪTANĀVIDHĀNA.[1152]
PUṬAPRAKARAṆA.[1153]
RAHASYAUṢADHA.[1154]
RĀHUDVĀDAŚABHĀVAPHALA.[1155]
RĀJAMĀRTAṆḌA.[1156]
RĀJAMṚGĀṄKA.[1157]

RĀJAVINODA. See *Kautukasāroddhāra*.
RĀJAYAKṢMANIDĀNA.[1158]
RAKTAGUÑJĀKALPA.[1159]
RAKTAPITTACIKITSĀ.[1160]
RAKTAPITTĀDINIDĀNACIKITSĀ.[1161]
RAKTAPITTANIDĀNA.[1162]
RAṆAVĪRAPRAKĀŚA.[1163]
RASABHEDĪYAPRASTĀRAPRADARŚANA.[1164]
RASAKRAVYĀDINĀMAKAUṢADHAVIDHĀNA.[1165]
RASANĀNIGRAHA.[1166]
RATNĀKARANIGHAṆṬA.[1167]
RATNĀKARAUṢADHAYOGAGRANTHA.[1168]
RATNASĀGARA.[1169]
ROGACIKITSĀ.[1170]
ROGACIKITSĀNIDĀNA.[1171]
ROGĀDĀNAVIDHĀNA.[1172]
ROGAHARADĀNAVACANĀNI.[1173]
ROGALAKṢAṆA.[1174]
ROGALAKṢAṆACIKITSĀ.[1175]
ROGALAKṢAṆANIDĀNA.[1176]
ROGAMŪRTINIRṆAYA.[1177]
ROGANAKṢATRAVĀRALAKṢAṆA.[1178]
ROGANĀMASAṂGRAHA.[1179]
ROGANIDĀNA.[1180]
ROGANIRṆAYA.[1181]
ROGANIŚCAYA.[1182]
ROGĀNTAKASĀRA.[1183]
ROGAPARĪKṢĀ.[1184]
ROGAPARĪKṢAṆA.[1185]
ROGAPRADĪPA.[1186]
ROGĀRAMBHA.[1187]
ROGĀRAMBHAPHALA.[1188]
ROGAŚAKUNAPṚCCHĀ.[1189]
ROGASAṂKHYĀ.[1190]
ROGASAṂKHYĀNIDĀNA.[1191]
ROGAŚĀNTI.[1192]
ROGAŚUBHĀŚUBHANAKṢATRAVICĀRA.[1193]
ROGATANNIDĀNAUṢADHĀNUPĀNASĀRA.[1194]
ROGAUṢADHACIKITSĀ.[1195]
ROGAUṢADHACIKITSĀVIDHĀNA.[1196]
ROGAUṢADHADRAVYANĀMASAMUCCAYA.[1197]
ROGAUṢADHAVICĀRA.[1198]
ROGĀVALĪ.[1199]
ROGĪPARĪKṢĀ.[1200]

ROGOTPATTINAKṢATRANIRŪPAṆA.[1201]
ROGOTPATTIPĀPACIKITSĀVIṢAYA.[1202]
ṚŚYAŚṚṄGASAṂHITĀ.[1203]
ṚŚYAŚṚṄGATANTRA.[1204]
ṚTUCARYĀ.[1205]
ṚTUGUṆA.[1206]
ṚTULAKṢAṆA.[1207]
ṚTUNĪTI.[1208]
ṚTUSAṂHĀRA.[1209]
RUCIVADHŪGALARATNAMĀLĀ.[1210]
RUDANTĪKALPA.[1211]
RUDANTYĀDIKALPA.[1212]
RUDRADATTA.[1213] A *Rudradatta* is referred to in the *Amṛtasāgara*.
RUDRĀKṢAKALPA.[1214]
RUKPRATIKRIYĀ.[1215]
ŚABDARATNAPRADĪPA[1216]
SĀDHYĀSĀDHYAMAHĀROGALAKṢAṆACIKITSĀ.[1217]
SĀDHYĀSĀDHYAPARĪKṢĀ.[1218]
SĀDHYĀSĀDHYASVARŪPA.[1219]
ṢAḌRASARATNAMĀLĀ.[1220]
SADVAIDYAJĪVANA.[1221]
SADVAIDYARATNĀKARA.[1222]
SAHADEVĪKALPA.[1223]

SAHASRAYOGA.[1224] This anonymous treatise, very popular among the vaidyas of Kerala, consists of a collection of recipes.[1225]

The majority of the recipes are in Sanskrit, but about one hundred and twenty of them (in ed. c) are in a mixture of Sanskrit and Malayāḷam, called maṇipravāḷam.[1226]

The *Sahasrayoga* employs a Malayāḷam technical term for one of the stages of what is called snehapāka; this term, cĕḷipāka, is explained by N.S. Mooss.[1227]

The formulae are for the larger part of an āyurvedic type, but rasayogas are found too.[1228]

The order of the diseases against which the formulations are effective is partly in agreement with the arrangement of the *Mādhavanidāna* in ed. b.[1229] The arrangement of the diseases is largely in conformity with the *Mādhavanidāna* from jvara up to mūtrakṛcchra. Deviations in this section are: additional chapters on jvarātisāra, viṣūcī and udāvarta, a chapter on hṛdroga between those on rājayakṣman and śvāsa-kāsa, a chapter on sthaulya between those on śvāsa-kāsa and hikkā, a chapter on kuṣṭha between those on vātarakta and śūla. The chapters after that on mūtrakṛcchra deal with: vṛddhi, asṛgdara, garbhiṇīroga, sūtikāroga, malaśodhana, vamana, ārtavaśodhana, yoniśūla, śopha, kāmilā, masūrī, viṣa, vidradhi, mahodara, and paraṅki.[1230]

The second part of edition b consists of prescriptions arranged according to the type of pharmaceutical preparation: guṭikā (77 items), vaṭakādi (22 items), cūrṇa (108 items), bhasmakṣāra (19 items), lehya (50 items), ariṣṭa (25 items), āsava (20 items),

taila (96 items), and ghṛta (135 items).

After a few chapters with prescriptions to be used in ūrdhvāṅgaroga and śiroroga, and one on the purification (śuddhi) of various medicinal substances, edition b ends with verses on dhārākalpa, which are mostly close to those of Kālidāsa's *Dhārākalpa*, but occasionally borrowed from the *Aṣṭāṅgahṛdayasaṃhitā*,[1231] and a section on nidāna in Malayāḷam prose.

Edition c differs from ed. b in arranging all the recipes according to the type of pharmaceutical preparation. It consists of a kaṣāyaprakaraṇa (72 recipes),[1232] ghṛtaprakaraṇa (59 recipes), tailaprakaraṇa (74 recipes), cūrṇaprakaraṇa (92 recipes), to which a section with bhasmakṣārādiyogas is added (14 recipes), ariṣṭaprakaraṇa (15 recipes), āsavaprakaraṇa (10 recipes), lehyaprakaraṇa (46 recipes), vaṭīprakaraṇa (16 recipes), guṭikāprakaraṇa (70 recipes), pariśiṣṭaprakaraṇa (111 recipes), and a second tailaprakaraṇa (44 recipes).[1233] The verses on dhārākalpa are absent from this edition.

Noteworthy diseases mentioned in ed. c are: asthisrāva (45), kapālārśas (98), nimnonnatajvara (= viṣamajvara), phiraṅgaroga (287), somaroga (39, 249).

Noteworthy items of the materia medica of ed. c are:[1234] aghorī (149),[1235] agnijihvā (107),[1236] agragrāhī (144, 225, 201, 255),[1237] agrapuṣpī (30), ajjhaḍā (136),[1238] ākulī (54, 129),[1239] ālūpaka (90),[1240] āmragandhā (312),[1241] ānanda (238),[1242] añjhuḍā (100),[1243] araṇyatulasī (10),[1244] arkarāga (254),[1245] āśāli (148),[1246] āvīra (12), bhadrikā (68, 71),[1247] bhūmitāla (32),[1248] bhūpīlu (66), bhūśarkarā (207),[1249] bhūtāla (149),[1250] daśapuṣpa (296),[1251] devadhūpa (85),[1252] dhūpapattra (141),[1253] dhūpikāsāra (141),[1254] dineśavallī (100),[1255] drāmaḍī (129, 142),[1256] gāndhārī (207),[1257] girimallikā (63),[1258] girimardinī (105),[1259] harikrānti (4),[1260] hariparṇikā (107),[1261] haṭha (91, 93),[1262] hirūverikā (27),[1263] ikṣvā (107), indravallī (91, 107, 149),[1264] jalakandaka (60),[1265] jambāla (236, 240),[1266] jambīrī (78), jvālāmukhī (237),[1267] kaṇḍiveṇṇa (140, 147), kanmadavedhin (140),[1268] kannāra (140, 146, 245, 261), kapi (149),[1269] kapota (20),[1270] kāralatikā (107), karuppu (140),[1271] kāsaharī (11),[1272] kāviyu (140),[1273] kerī (= nārikela; 69, 78), khapura (85),[1274] kṛṣṇabīja (207), kuhalī (45, 106), kukūla (107),[1275] kūvā (136),[1276] mahātālakanda (129), mahītāla (129),[1277] maṇḍaka (78),[1278] mehāri (54),[1279] modaka (144),[1280] modakatvac (45, 46),[1281] mṛdukuñcikā (68), nābhi (146, 230),[1282] navasāra (105), nīṅgaṇa (296, 308),[1283] pāraṅkī (147),[1284] pārantī ((54),[1285] parpaṇa (55), paśugandhā (130, 132),[1286] paśupāśi (144, 150),[1287] pūtavṛkṣa (147),[1288] rajatāri (107),[1289] rakṣatikā (107), śakralatā (22, 55),[1290] śakravallarī (86),[1291] sanniṇāyaka (140, 147), sphoṭyābhujaṅgama (72), śrīkaṇṭha (84, 93, 139),[1292] suvarṇatṛṇa (148), svarṇāsya (118),[1293] svastika (44),[1294] takkola (58, 93, 94, 99, 103, 123, 161),[1295] tekarāja (82, 91, 116, 227),[1296] trikaṇā (55),[1297] trikānta (88),[1298] tripādī (11, 304),[1299] triyava (205),[1300] uttamakanyakā (4),[1301] vaikuṇṭha (30, 98),[1302] vairī (149),[1303] varāla (141),[1304] vārdhipattraka (52),[1305] varṇavatī (107),[1306] varūṇa (51), vibudhataru (130),[1307] viṣṇukrānti (10, 30),[1308] and yakṣākṣī (22).[1309]

Recipes found in the *Sahasrayoga* which have been studied are:[1310] daśamūlakaṭutrayakaṣāya (11),[1311] veṭṭumāranguṭikā (253).[1312]

A not inconsiderable number of the formulae of the *Sahasrayoga* are also found, either in the same form or modified, in other medical works.[1313]

A *Sahasrayoga*, *Sahasrayogī*, and *Sahasrayogavyākhyā* are quoted in Anantakumāra's *Yogaratnasamuccaya*. The *Sahasrayoga* is one of the sources of the *Bheṣajasaṃhitā*.

The author and date of the *Sahasrayoga* are unknown.

SAKALAROGACIKITSĀGRANTHA.[1314]
SAKALAROGAGAṆANĀ.[1315]
ŚĀKALASAṂHITĀ.[1316]
ŚAKUNAPARĪKṢĀDI.[1317]
ŚĀLĀKYATANTRA.[1318]
ŚĀLMALĪKALPA.[1319]
ŚALYATANTRA.[1320]
SAMASAMBHOJANAVIDHI.[1321]
SAMASTADRAVYAŚUDDHYAIKAKRAMANIRṆAYA.[1322]
SAṂDEHABHAÑJANĪ.[1323]
SAṂGRAHAṆĪROGACIKITSĀ.[1324]
SAṂGRAHARATNAMĀLĀ.[1325]
SAṂGRAHATARAṄGIṆĪ.[1326]
SAṂJÑĀSAMUCCAYA.[1327]
SAṂNIPĀTACANDRIKĀ.[1328]
SAṂNIPĀTACIKITSĀ.[1329]
SAṂNIPĀTĀDIROGANIDĀNA.[1330]
SAṂNIPĀTAJVARANIDĀNA.[1331]
SAṂNIPĀTAKALIKĀ.[1332]
SAṂNIPĀTALAKṢAṆA.[1333]
SAṂNIPĀTALAKṢAṆACIKITSĀ.[1334]
SAṂNIPĀTALAKṢAṆĀNI.[1335]
SAṂNIPĀTANĀḌĪLAKṢAṆA.[1336]
SAṂNIPĀTANIDĀNA.[1337]
SAṂNIPĀTANIDĀNA and -CIKITSĀ.[1338]
SAṂNIPĀTAPĀDACANDRIKĀ.[1339]
SAṂNIPĀTAPATHYĀPATHYĀDI.[1340]
SAṂNIPĀTAPRAKARAṆA.[1341]
SAṂNIPĀTĀRṆAVA.[1342]
ṢAṆḌHĀDHIKĀRA.[1343]
ṢAṆḌHASPHUṬAKA.[1344]
SAṄGASAMUCCAYA.[1345]
SANTĀNASROTA.[1346]
SĀRACANDRIKĀ.[1347]
SĀRADĪPIKĀ.[1348]
SĀRAKAUMUDĪ.[1349] See *Cikitsāsārakamudī*.
SĀRAṆATAILASĀDHANA.[1350]
SĀRAṄGALAVAṆANIRMĀṆAVIDHI.[1351]
SĀRANIGHAṆṬU.[1352]
SĀRASAṂGRAHA.[1353]

SĀRASVATĀBHIDHĀNA.[1354]
SĀRASVATAGHṚTĀDIYOGA.[1355]
SARASVATĪCŪRṆAVIDHĀNA.[1356]
SĀRATILAKA.[1357]
SĀRĀVALĪ or *Sārāvali*.[1358]
ŚĀRĪRA.[1359]
ŚĀRĪRAKĀNUṢṬHEYASĀMĀNYAVICĀRA.[1360]
ŚĀRĪRANIBANDHASAṂGRAHA.[1361]
ŚĀRĪRASAṂGRAHA.[1362]
ŚĀRĪRAVAIDYA.[1363]
ŚĀRṄGADHARASAṂGRAHA.[1364]
SĀRODDHĀRA.[1365]
SĀRODDHĀRASAṂGRAHA.[1366]
SĀROTTARANIGHAṆṬU.[1367]
SARPADAṂŚANAMANTRACIKITSĀ.[1368]
SARPANIRODHAMANTRAVIDHI.[1369]
SARVABHŪTACINTĀŚĀRĪRA.[1370]
SARVAJANAVAŚYAUṢADHA.[1371]
SARVAJVARAKAṢĀYA.[1372]
SARVAJVARAVIPĀKA.[1373]
SARVAKĀŚABHEṢAJA.[1374]
SARVĀṄGACIKITSĀ.[1375]
SARVĀÑJANAKALPA.[1376]
SARVAPARĪKṢAṆA.[1377]
SARVAROGACIKITSĀRATNA.[1378]
SARVAROGACIKITSITA.[1379]
SARVAROGANIDĀNA.[1380]
SARVAROGANIVĀRAKAUṢADHAVIDHĀNA.[1381]
SARVASAṂGRAHA.[1382]
SARVAVAIDYASĀRASAMUCCAYA.[1383]
SARVAVIJAYĪTANTRA.[1384]
SARVAVIṢACIKITSĀ.[1385]
SARVAVYĀDHICŪRṆAVIDHI.[1386]
ŚAŚĀṄKAKIRAṆA.[1387]
ŚĀSTRARATNANIGHAṆṬU.[1388]
ŚATĀDHIKĀṢṬĀŚĪTIPATTRĀṆI.[1389]
ŚATAMŪLĀNI.[1390]
ŚATAŚLOKĪ.[1391]
ŚATAUṢADHANĀMĀNI.[1392]
ŚATAUṢADHĀNI.[1393]
ŚATAUṢADHAPRATINIDHAYAḤ.[1394]
ŚATAUṢADHAVṚKṢAMŪLANĀMĀNI.[1395]
ŚATĀVARĪTAILANIRMĀṆAVIDHI.[1396]
ŚATAYOGAGRANTHA.[1397]

SATKAṆṬHARATNĀBHARAṆA.[1398]
ṢAṬTRIṂŚALLŪTĀSVARŪPA.[1399]
SAUBHĀGYACINTĀMAṆI.[1400]
SAUBHĀGYAŚAṂKARĀDI.[1401]
SAUBHĀGYAŚUṆṬHĪ and PĀRIJĀTAŚUṆṬHĪ.[1402]
SAUBHĀGYAŚUṆṬHYĀDICŪRṆAVIDHI.[1403]
SIDDHAJĪVANATANTRA.[1404]
SIDDHAMŪLIKĀMANTRA.[1405]
SIDDHASĀRASAṂGRAHA.[1406]
SIDDHASĀRASAṂHITĀ.[1407]
SIDDHASŪRIKALPA.[1408]
SIDDHAUṢADHAMŪLAGRAHAṆAVIDHI.[1409]
SIDDHAUṢADHAPRAKARAṆĀDI.[1410]
SIDDHAYOGARATNĀVALĪ or *-ratnāvali*.[1411]
SIDDHAYOGASAṂGRAHA.[1412]
SIDDHAYOGASAMUCCAYA.[1413]
SIDDHAYOGODAYA.[1414]
SIDDHIRASĀYANAKALPA.[1415]
ŚĪGHRACIKITSĀ.[1416]
ŚĪGHRABODHANIDĀNA.[1417]
ŚIGRUPUṢPARASĀYANAVIDHI.[1418]
ŚIROROGĀDHYĀYA.[1419]
ŚIROROGANIRṆAYA.[1420]
ŚIROROGAMANTRACIKITSĀ.[1421]
ŚLEṢMAJVARANIDĀNA.[1422]
SNĀYUROGACIKITSĀ.[1423]
SNEHAMĀLIKĀ.[1424]
SPHUṬAVAIDYA.[1425]
ŚṚGĀLAKALPA.[1426]
ŚRĪPHALAKALPA.[1427]
STAMBHANAPRAKĀRA.[1428]
STRĪCIKITSĀMṚTAVILĀSA.[1429]
STRĪCIKITSĀPADDHATI.[1430]
STRĪGARBHAŚŪLACIKITSĀ.[1431]
STRĪROGACIKITSĀ.[1432]
STRĪVAIDYA.[1433]
STRĪVAŚYAVIDHĀNA.[1434]
SUGRĪVASAṂKARIṆĪVIDYĀ.[1435]
SUKHĀNANDASŪTRASTHĀNA.[1436]
SUKHĀNANDAVINODA.[1437]
SUKHAPRASAVOPĀYAVIDHI.[1438]
SŪKṢMAPRASĀRA.[1439]
SULABHAUṢADHASĀDHANA.[1440]
ŚŪLACIKITSĀ.[1441]

ŚŪLĀDĀNANIDĀNACIKITSĀ.[1442]
ŚUṆṬHĪKALPA.[1443]
ŚUṆṬHĪRASĀYANAVIDHI.[1444]
SŪRAṆĀDIVAṬAKĀ.[1445]
SŪRYARĀYĀNDHRANIGHAṆṬU.[1446]
SUŚRUTASĀRA.[1447]

SUVARṆAPRABHĀSASŪTRA.[1448] This Mahāyānasūtra,[1449] also called *Suvarṇabhāsa-* and *Suvarṇa(pra)bhāsottamasūtra*, contains some important early medical material. The work, originally in Sanskrit,[1450] was translated into Tibetan,[1451] Khotanese,[1452] Sogdian,[1453] Chinese,[1454] Ughur,[1455] and Mongol.[1456]

Chapter fifteen,[1457] on Sarasvatī, is about a ritual bath, attended by spells and incantations; many fragrant drugs are mentioned.[1458]

Chapter sixteen,[1459] called vyādhipraśamana, consists of some introductory prose, thirteen verses, and some concluding prose. The introductory prose tells about the śreṣṭhin (foreman of a guild) Jaṭiṃdhara,[1460] who had been active as a medical practitioner during the reign of king Sureśvara. When Jaṭiṃdhara had grown old and did no longer practise, which resulted in the reappearance of all kinds of afflictions, his son Jalavāhana approached him with the request to transmit the medical science to him. The metrical part opens with this entreaty. The remaining verses contain Jalavāhana's questions and Jaṭiṃdhara's answers.

Jalavāhana wants to know why and how the senses (indriya) and elements (dhātu) are subject to changes, and during which periods of the year diseases arise. He also asks when vāta, pitta and kapha are liable to become excited and which medicines are suitable to their pacification.

Jaṭiṃdhara explains that the year is divided into four main seasons of three months' duration: summer, autumn, winter and spring, or six seasons of two months; the senses and the six elements, as well as the digestive processes, show variations in accordance with the seasons; these periodic changes may lead to disorders, in particular during the transition between one season and the next one.

Diseases due to vāta arise during the rainy season, those due to pitta in the autumn, those due to a combination in the winter, and those due to kapha in the summer. The tastes (rasa) to be preferred in one's diet are therefore: snigdha (fatty), uṣṇa (heating), lavaṇa (salty) and sour (amla) during the rainy season; snigdha, madhura (sweet) and cooling (śītala) during the autumn; madhura, amla and snigdha during the winter; kaṣāya (astringent), uṣṇa and kaṭu (pungent) during the summer. Excitement of kapha occurs shortly after the ingestion of food, excitement of pitta during the digestive processes, excitement of vāta at the completion of digestion. Vāta can be counteracted by bṛṃhaṇa measures,[1461] pitta by purgatives (virecana), kapha by emetics (vamana).

The concluding prose relates that Jalavāhana, after the acquisition of this knowledge, began to treat those who were suffering from diseases.

The first and second Tibetan translations give a faithful rendering of this summary of the medical art, some slight adaptations excepted: the rainy season, unknown in Tibet, is replaced by the summer, the summer by the season of spring.

The third Tibetan translation is not based on the Sanskrit original, but on I-ching's Chinese version.

The version in Old Khotanese corresponds more or less to the Sanskrit text, but the parts preserved of a translation in Late Khotanese correspond to I-ching's text.

The *Suvarṇaprabhāsa* was translated into Chinese by Dharmakṣema,[1462] Paramārtha, Yaśogupta, Pao Kuei, and I-ching.[1463] Dharmakṣema follows the original rather closely.[1464] I-ching's translation presents a much longer text;[1465] his version of the story about Jaṭiṃdhara and Jalavāhana consists of thirty-seven instead of thirteen verses.

The *Suvarṇaprabhāsa* employs the term dhātu for the doṣas and the elements of the body. The Tibetan translators render the term by khams, the ususal equivalent of dhātu.

Dharmakṣema and I-ching had problems with dhātu as a term designating the doṣas. Dharmakṣema interprets dhātu as mahābhūta, and, in agreement with this view, adds that they are four in number.[1466] He even changes the Sanskrit text and renders the triad of dhātus (dhātutritaya) by 'the four mahābhūtas', which creates confusion. I-ching agrees with Dharmakṣema in rendering dhātu with the Chinese characters for mahābhūta, but avoids the difficulty presented by dhātutritaya by omitting this word and replacing it by a colourless expression.[1467]

Vāta, pitta and kapha are translated by wind, heat and water, or by wind, heat and phlegm by Dharmakṣema; I-ching uses heat or yellow heat as the equivalent of pitta.

The term dhātu, when used for the elements of the body, is also interpreted as mahābhūta by Dharmakṣema, although this conflicts with their number. I-ching, who was interested in Indian medicine, was acquainted with the series of seven bodily elements of āyurveda and gives a correct translation of the term.

The Sanskrit text of chapter sixteen of the *Suvarṇaprabhāsa* refers to six elements of the body,[1468] which is very remarkable, given the fact that their number is always seven in āyurvedic literature. Unfortunately, the items comprising the series are not listed. I-ching enumerates them in his version and completes the list by adding brain tissue as the seventh element, notwithstanding the fact that āyurvedic works have always śukra (semen) as the last element of the series.

I-ching expanded the verses on the seasons with the names of the six Indian seasons, beginning his list with spring. Both Dharmakṣema and I-ching made, in the same way as the Tibetan translators, some minor changes in the text in order to make the series of four main seasons conform to Chinese climatic conditions.

The views of the *Suvarṇaprabhāsa* on the tastes are very remarkable. The eight tastes it distinguishes are unknown in āyurvedic literature; they are not referred to as representing a heterodox theory in the ātreyabhadrakāpyīya chapter (Sū.26) of the *Carakasaṃhitā*. The tastes of the *Suvarṇaprabhāsa* are a mixture of the āyurvedic rasas and guṇas. Noteworthy is the absence of the bitter (tikta) taste.

The relationships between the tastes and the four main seasons are largely in agreement with āyurvedic theory, but some discrepancies made Dharmakṣema and I-ching introduce changes in their translations of the pertinent verses.[1469]

The bṛṃhaṇa remedial measures against vāta diseases are replaced by ghee in the Chinese translations; both Dharmakṣema and I-ching recommend the use of harītakī

as a specific against diseases caused by heat (= pitta).[1470]

I-ching's translation of the thirteen verses of the *Suvarṇaprabhāsa* consists of twenty-two verses, to which fifteen stanzas are added as an appendix. These stanzas describe the eight branches of āyurveda, the constitutions (prakṛti), signs foreboding death (ariṣṭa), and some important medicinal substances (triphalā, tryūṣaṇa, sugar, honey, ghee, and milk).[1471]

Dharmakṣema translated the *Suvarṇaprabhāsa* between A.D. 414 and 421;[1472] I-ching translated it between A.D. 695 and 712.[1473] The Sanskrit text can therefore not be later than the second half of the fourth century.

SUYOGARATNĀVALĪ.[1474]
SVARASAVIṢAMUṢṬI.[1475]
ŚVETACARMAVYĀDHYAUṢADHAVIDHĀNA.[1476]
ŚVETAGUÑJĀKALPA.[1477]
ŚVETAMUSALĪKALPA.[1478]
ŚVETARIṄGAṆĪKALPA.[1479]
ŚVETĀRKĀDIKALPA.[1480]
ŚVETĀRKAKALPA.[1481]
TAILABHASMARASAUṢADHAVIDHĀNA.[1482]
TAILĀBHYAṄGANIRṆAYA.[1483]
TAILABINDUPARĪKṢĀ.[1484]
TAILACŪRṆARASĀYANĀDIVIDHĀNA.[1485]
TAILADHĀRĀVAGĀHANAVIDHI.[1486]
TAILĀDHIKĀRA.[1487]
TAILĀDIVIDHISAṂGRAHA.[1488]
TAILALEHYAGHṚTĀDIVIDHĀNA.[1489]
TAILALEHYAŚUṆṬHĪRASĀYANĀNI.[1490]
TAILAPĀKAVIDHI.[1491]
TAILAPARĪKṢĀ.[1492]
TAILAPRAKARAṆA.[1493]
TAILAPRAYOGA.[1494]
TAILARASAVIDHĀNĀNI.[1495]
TAILĀRṆAVAVIDHI.[1496]
TAILASAMUCCAYA.[1497]
TAILAVIDHĀNA.[1498]
TAILAVIDHI.[1499]
TAILAYOGĀḤ.[1500]
TAILOPAVEŚANAVIDHI.[1501]
TAKRACIKITSĀVIDHI.[1502]
TAKRAKALPA.[1503]
TAKRAPADDHATI.[1504]
TAKRAPĀNAVIDHI.[1505]
TAKRASĀDHANĀDIVIDHI.[1506]
TĀLĪSĀDICŪRṆA.[1507]

TĀLĪSĀDICŪRṆAVINIYOGAVIDHI.[1508]
TĀLĪSAVAṬIKĀVIDHĀNA.[1509]
TĀMBŪLACARVAṆAVIDHI.[1510]
TĀMBŪLAGUṆĀḤ.[1511]
TĀMBŪLAKALPA.[1512]
TĀMBŪLASĀDHANAVIDHI.[1513]
TĀMBŪLAVIDHI.[1514]
TANTRASĀRA.[1515]

TANTRAYUKTI.[1516] The treatise deals with the same thirty-six tantrayuktis as those found in Nīlamegha's *Tantrayuktivicāra*,[1517] and is based on the latter work as explicitly stated by the author himself.[1518]

The work begins with a series of thirty-one verses in which the whole of Nīlamegha's introduction is incorporated. Indu's *Śaśilekhā* and another, unknown, commentary, called *Avataṃsa*, are mentioned in these introductory stanzas, which also contain a detailed table of contents, from which, however, the list of tantradoṣas and the portion on leśakalpanā are missing.

The thirty-six tantrayuktis are defined in ślokas,[1519] accompanied by an auto-commentary which draws heavily on Nīlamegha's work, being partly identical with it, partly original and more extensive. This commentary, preserved only up to yukti ten, quotes, apart from the authorities also mentioned by Nīlamegha, Indu (12) and Aruṇa (12 and 14), while Nīlamegha is repeatedly referred to as Megha.[1520] The exposition on the tantrayuktis is completed by verses elucidating the other tantraguṇas.

The tantrayuktis form part of a system of ninety-five tantraguṇas, elaborately described by Aruṇadatta.[1521] Aruṇadatta is followed closely by the author of the *Tantrayukti*, who repeats Aruṇadatta's prose definitions in verse; he adds one item, thus enlarging upon the number and making a total of ninety-six tantraguṇas. The complete series of tantraguṇas consists, apart from the tantrayuktis, of fifteen types of exposition (vyākhyā), described in eleven ślokas (48–49), seven types of arrangement (kalpanā), described in seven ślokas and a half (49), twenty-one types of basic procedure (āśraya),[1522] described in twenty-three ślokas and one gīti (50–52), and finally of a series of seventeen items which begin with tācchīlya, described in nineteen ślokas, one gīti and a half-verse of an unusual type (53–55).

A verse follows in which the author expresses his wish that (his) son Tuṅgamānya may benefit from the exposition of these ninety-six alaṃkāras.

After quoting Vāgbhaṭa (A.s.U.50.154 and 156–157), the author enumerates fourteen tantradoṣas in four ślokas (55), thus deviating from the series of fifteen doṣas given by Aruṇadatta by omitting one of them, namely bhinnakrama (displacement). A series of eleven verses and a half follows, in which the author praises Nīlamegha, the author of the *Tantrayuktivicāra*, and Bhiṣagārya, who composed the *Abhidhānamañjarī* (56–57). Five verses among these, which describe Nīlamegha's lineage, are taken from the *Abhidhānamañjarī*. The subject of leśakalpanā, one of the seven types of kalpanā, is taken up again at the end of the work; this topic is dealt with in prose, concluded by four verses (57–60). The author repeats the whole of Aruṇadatta's comment on the term, fol-

lowed by his own exposition in prose, in which he quotes from the *Śivadharmottara*[1523] and an authority called Kālavedin; the chief terms discussed are (a)niyatāyus, (a)kālamṛtyu, and apamṛtyu.[1524]

The author of the *Tantrayukti* seems to have belonged to the same lineage as Nīlamegha and Bhiṣagārya, or he was a pupil of one of the descendants of this famous line of South Indian physicians.

The author is later than Nīlamegha and Bhiṣagārya, to whom he refers.

TANTROKTACIKITSĀ.[1525]
TANTROKTAUṢADHASAMGRAHA.[1526]
TARKABHĀṢĀ.[1527]
TRAYASTRIMŚADGAṆAPĀṬHA.[1528]
TRAYODAŚASAMNIPĀTACIKITSĀ.[1529]
TRAYODAŚASAMNIPĀTAKALIKĀCIKITSĀ.[1530]
TRIBHUVANATILAKA.[1531]
TRIDOṢANIDĀNA.[1532]
TRIDOṢAPRAŚAMANAUṢADHA.[1533]
TRIPHALĀCŪRṆAVIDHĀNA.[1534]
TRIPHALĀKALPA.[1535]
TRIVARGAŚRĪPHALĀDINIGHAṆṬU.[1536]
TṚṆAJYOTIKALPA.[1537]
TṚṆAJYOTIṢMATĪKALPA.[1538]
TRYAMBAKĪPRĀKṚTA.[1539]
UDAKALAKṢAṆA.[1540]
UDARAROGABHEDAPRABHEDANIDĀNACIKITSĀ.[1541]
UDARAROGACIKITSĀVIDHI.[1542]
UDARAVYĀDHICIKITSĀ.[1543]

The UḌḌĪŚATANTRA[1544] is a Tantric text on magic,[1545] sometimes ascribed to Rāvaṇa, which also appears under other titles. Four versions can be distinguished: (1) *Uḍḍāmaratantra*, a dialogue between Śiva and Pārvatī, (2) *Uḍḍīśatantra* or *Rāvaṇoḍḍīśa*, in the form of a conversation between Śiva and Rāvaṇa, (3) *Vīrabhadratantra*, and (4) *Kriyoḍḍīśatantra*.

One of the printed versions of the *Uḍḍīśatantra*[1546] is a treatise on ṣaṭkarman[1547] in 378 verses, to which a number of mantras have been added. It consists of a dialogue between Śiva and Rāvaṇa and has been arranged in ten chapters. The order of these ten chapters does not agree with the table of contents found in chapter one (1.20–27), where eight chief subjects are enumerated: karṣaṇa, unmādana, vidveṣaṇa, uccāṭana, grāmakasyoccāṭana, jalastambha, stambhana, and vājīkaraṇa, followed by a long list of secondary subjects.

The topics dealt with in the ten chapters are: māraṇa (1), mālānirṇaya and dhānyādināśa (2), mohana (3), stambhana (4), vidveṣaṇa (5), uccāṭana (6), vaśīkaraṇa and drāvaṇa (7), ākarṣaṇa (8), yakṣiṇīsādhana (9),[1548] and indrajāla (10).[1549]

Topics of medical interest are:[1550] practices with the aim of increasing the size of the male organ (7.20–30) and the size and firmness of the breasts in the female (7.37–43), removing a bad smell from the female genitals (7.45), removing the pubic hair in the female (7.46–50), and tightening the vagina (7.51–54). Chapter ten describes, amongst other things, how to drive away bhūtas who cause diseases (10.8–18), how to make insanity, kuṣṭha and visphoṭas appear and disappear again in one's enemies (10.19–31), and how to drive away insects, rats, snakes, etc. (10.32–44); it also contains recipes which are said to cure various women's diseases and female infertility, or to prevent abortion (10.46–93).

The *Uḍḍīśatantra*, which enjoys great popularity all over India, is quoted as a source in several texts,[1551] e.g., the *Amṛtasāgara*, *Dattātreyatantra*, Kokkoka's *Ratirahasya*,[1552] Nāgārjuna's *Kakṣapuṭa*, Narasiṃha's *Tārābhaktisudhārṇava*,[1553] the Mantrakhaṇḍa of Nityanātha's *Rasaratnākara*, and Sarvānandanātha's *Sarvollāsa*.[1554]

A version of the *Uḍḍīśatantra* in the form of a dialogue between Śiva and Pārvatī contains a chapter, called grastabālacikitsā, which deals with the treatment of children possessed by grahas, and shows a close affinity with the *Kumāratantra*, attributed to Rāvaṇa.[1555]

ULŪKAKALPA.[1556]
UMĀMAHEŚVARASAMVĀDA.[1557]
UNMĀDACIKITSĀPAṬALA.[1558]
UNMĀDALAKṢAṆACIKITSĀ.[1559]
UPADAMŚACIKITSĀ.[1560]
UPAYUKTALAGHUVAIDYA.[1561]
UPAYUKTAVAIDYA.[1562]
UṢAḤPĀNĪYA.[1563]
UṢĀNIDĀNA.[1564]
UTPALEŚVARASĀRASAMGRAHA.[1565]
UTTARASTHĀNA.[1566]
UTTARAVĀRUṆĪKALPA.[1567]
VĀHANASĀRA.[1568]
VAIDEHASAMGRAHA.[1569]
VAIDYA.[1570]
VAIDYABHĀSKARODAYA.[1571]
VAIDYABHEṢAJATARKA.[1572]
VAIDYABHŪṢAṆA.[1573]
VAIDYABHŪṢAṆĀDI.[1574]
VAIDYABHŪṢAṆANIGHAṆṬA.[1575]
VAIDYACANDRODAYA.[1576]
VAIDYACIKITSĀ.[1577]
VAIDYACIKITSĀMṚTA.[1578]
VAIDYACINTĀMAṆI.[1579]
VAIDYADARPAṆA.[1580]
VAIDYADĪPIKĀ.[1581]
VAIDYADRAVYANĀMASAMUCCAYA.[1582]

VAIDYADRAVYAPARIMĀṆANĀMADHEYAVICĀRA.[1583]
VAIDYADRAVYASĀRA.[1584]
VAIDYADRAVYAYOGA.[1585]
VAIDYAGRANTHA.[1586]
VAIDYAGUṆAPĀṬHA.[1587]
VAIDYAGUṆASĀRA.[1588]
VAIDYAKA.[1589]
VAIDYAKACIKITSĀSĀRAKAUMUDĪ.[1590]
VAIDYAKAGRANTHA.[1591]
VAIDYAKAGRANTHAPATTRĀṆI.[1592]
VAIDYAKAGUṆASĀRA.[1593]
VAIDYAKAKOŚA.[1594]
VAIDYAKĀLAJÑĀNA.[1595]
VAIDYAKALLOLA.[1596]
VAIDYAKALPA.[1597]
VAIDYAKALPABHŪṢAṆA.[1598]
VAIDYAKALPADRUMA.[1599]
VAIDYAKALPATARU.[1600]
VAIDYAKAMĀDHAVĪ.[1601]
VAIDYAKAMANORAMĀ.[1602]
VAIDYAKAMATASĀRASAṂGRAHA.[1603]
VAIDYAKANIGHAṆṬU.[1604]
VAIDYAKANIGHAṆṬUVIŚEṢA.[1605]
VAIDYAKAPARIBHĀṢĀ.[1606]
VAIDYAKAPRASTĀVIKĀSAṂGRAHA.[1607]
VAIDYAKARASĀYANA.[1608]
VAIDYAKARATNAMĀLIKĀ.[1609]
VAIDYAKARATNĀVALĪ.[1610]
VAIDYAKASAṂGRAHA.[1611]
VAIDYAKASAṂGRAHA.[1612]
VAIDYAKASAṂHITĀ.[1613]
VAIDYAKASĀRA.[1614]
VAIDYAKASĀRACIKITSĀ.[1615]
VAIDYAKASĀRASAṂGRAHA.[1616]
VAIDYAKASĀRĀVALĪ.[1617]
VAIDYAKASĀRODDHĀRA.[1618]
VAIDYAKAUSTUBHA.[1619]
VAIDYAKAVĀDA.[1620]
VAIDYAKAVIDHI.[1621]
VAIDYAKĪYAPRAYOGA.[1622]
VAIDYAKĪYASAṂSKṚTADRĀVIḌAPRATIPADĀRTHAKOŚA.[1623]
VAIDYAKUTŪHALA.[1624]
VAIDYALAKṢAṆA.[1625]
VAIDYĀLAṂKĀRA.[1626]

VAIDYAMAHĀSĀRARAHASYA.[1627]
VAIDYAMAHOTSAVA.[1628]
VAIDYAMĀLIKĀ.[1629]

VAIDYAMANORAMA or CIKITSĀKRAMA.[1630] This work consists of a collection of recipes in Sanskrit with a commentary in Malayāḷam. The arrangement of the diseases and of the prescriptions against them does not fully agree with one of the established patterns, but has been influenced by the order found in the works ascribed to Vāgbhaṭa.

Part I has twelve chapters: jvara (1), raktapitta (2), asṛgdara (3),[1631] kāsa (4), hidhmā and śvāsa (5), rājayakṣman, svarasāda (= svarabheda) and arocaka (6), bhaktarodha (7),[1632] chardi, hṛdroga and tṛṣṇā (8), madātyaya (9), arśas, raktārśas and udāvarta (10),[1633] atisāra, raktātisāra, pravāhikā and gṛdhrasī (11),[1634] grahaṇī and viṣūcikā (12).

Part II has eighteen chapters: mūtrakṛcchra (13), prameha, piṭakā, somaroga and mūtrātisāra (14),[1635] vidradhi and vṛddhi (15), gunma,[1636] raktagunma, śūla, ānāhādi and jalakūrma (16),[1637] mahodara (17), pāṇḍuroga, kāmilā and kumbhakāmilā (18), śopha (19), visarpa (20), masūrikā, visphoṭaka, kakṣyā and śītapitta (21),[1638] kuṣṭha (22), śvitra and kṛmi (23), vātaroga (24), vātaśoṇita (25), urahkṣatādi, sthūlaroga, kṛśaroga, vandhyā, prasūtiroga and bālaroga (26),[1639] unmādādi and apasmāra (27), netraroga (28), karṇaroga (29), and pratiśyāyādi (30).

Several subjects are not dealt with at all, in particular many disorders belonging to śalya. Chapters on viṣa, rasāyana and vājīkaraṇa are also absent.

The author and date of this work are unknown.

VAIDYAMANORAMĀ.[1640]
VAIDYAMANOTSAVA.[1641]
VAIDYĀMṚTA.[1642]
VAIDYĀMṚTASĀRA.[1643]
VAIDYAMUKHADARPAṆA.[1644]
VAIDYAMUKTĀVALĪ.[1645]
VAIDYANĀMAMĀLĀ.[1646]
VAIDYANAYABODHIKĀ.[1647]
VAIDYANIBANDHA.[1648]
VAIDYANIDĀNA.[1649]
VAIDYANIGHAṆṬU.[1650]
VAIDYĀNUBHAVA.[1651]
VAIDYAPADAPRATIPADĀRTHAKOŚA.[1652]
VAIDYAPADDHATI[1653]
VAIDYAPRADĪPA.[1654]
VAIDYAPRAKĀRA.[1655]
VAIDYAPRAMEYANIRŪPAṆA.[1656]
VAIDYAPRASTĀVANĀ.[1657]
VAIDYAPRIYAKĀVYA.[1658]
VAIDYARAHASYA.[1659]

VAIDYARAHASYAPADDHATI.[1660]
VAIDYARĀJATANTRA.[1661]
VAIDYARASAMAÑJARĪ.[1662]
VAIDYARASĀMṚTA.[1663]
VAIDYARASARATNA.[1664]
VAIDYARATNA.[1665]
VAIDYARATNĀKARABHĀṢYA.[1666]
VAIDYĀRṆAVA. See *Ārṣavidyānuśāsana.*
VAIDYĀRṆAVAMUKURA.[1667]
VAIDYASĀGARA.[1668]
VAIDYASAṂGRAHA.[1669]
VAIDYASAṂJĪVANA.[1670]
VAIDYASĀMUDRA.[1671]
VAIDYASĀRA.[1672]
VAIDYASĀRAMAÑJARĪ.[1673]
VAIDYASĀRANIGHAṆṬU.[1674]
VAIDYASĀRASAṂGRAHA.[1675]
VAIDYASĀRASAMUCCAYA.[1676]
VAIDYASĀRASVATA.[1677]
VAIDYASĀRĀVALĪ.[1678]
VAIDYASĀRODDHĀRA.[1679]
VAIDYASARVASVA.[1680]
VAIDYASARVASVACIKITSĀRṆAVA.[1681]
VAIDYASARVASVASĀRASAṂGRAHA.[1682]
VAIDYAŚĀSTRA.[1683]
VAIDYAŚĀSTRADĪPIKĀ.[1684]
VAIDYAŚĀSTRADVIPAÑCĀŚIKĀ.[1685]
VAIDYAŚĀSTRANIDĀNA.[1686]
VAIDYAŚĀSTRAPRAVARTAKĀCĀRYANĀMASAMUCCAYA.[1687]
VAIDYAŚĀSTRASĀRASAṂGRAHA.[1688]
VAIDYASAUKHYA.[1689]
VAIDYASIDDHĀNTACANDRIKĀ.[1690]
VAIDYASIDDHĀNTAKAUMUDĪ.[1691]
VAIDYASUBHĀṢITA. See *Vaidyakaprastāvikāsaṃgraha.*
VAIDYASŪTRAṬĪKĀ.[1692]
VAIDYATANTRA.[1693]
VAIDYAVALLABHA.[1694]
VAIDYAVIDHĀNA.[1695]
VAIDYAVIDHI.[1696]
VAIDYAVIDVAJJANOLLĀSA.[1697]
VAIDYAVIDYĀPRAKĀŚA.[1698]
VAIDYAVIDYĀMṚTA.[1699]
VAIDYAVIDYĀVINODA.[1700]
VAIDYAVIJÑĀNASAṂGRAHA or *Vidvadvaidyarañjanī.*[1701]

VAIDYAVILĀSA.[1702]
VAIDYAVINODA.[1703]
VAIDYAVIṢAYA.[1704]
VAIDYAVIṢAYĀNUKRAMAṆIKĀ.[1705]
VAIDYAVYĀDHINIGRAHA.[1706]
VAIDYAYOGA.[1707]
VAIDYAYOGARATHA.[1708]
VAIDYAYOGASAṂGRAHA.[1709]
VĀJĪKARAṆA.[1710]
VĀJĪKARAṆADĪPIKĀ.[1711]
VĀJĪKARAṆAKALPA.[1712]
VĀJĪKARAṆARATNAMĀLĀ.[1713]
VĀKYAPRADĪPIKĀ.[1714]
VAMANAVIRECANAVASTUKATHANA.[1715]
VAMANAVIREKĀDICIKITSĀ.[1716]
VANASPATYĀDIVIVIDHAKALPA.[1717]
VANDĀKALPA.[1718]
VANDHYĀCIKITSĀ.[1719]
VANDHYĀKALPA.[1720]
VANDHYĀPRAYOGA.[1721]
VAṄGAKALPA.[1722]
VARAUṢADHIPRAKARAṆA.[1723]
VARGASŪTRAVYĀKHYĀ.[1724]
VARUṆAKALPA.[1725]
VASANTAKUMĀRĀDIYOGA.[1726]
VASTUGUṆĀGUṆA.[1727]
VASTUGUṆAKALPAVALLĪ.[1728]
VASTUGUṆANIRṆAYA.[1729]
VASTUGUṆAPĀṬHA.[1730]
VAŚYĀDIPRAYOGA.[1731]
VĀTABHEDAPRABHEDACIKITSĀ.[1732]
VĀTACIKITSĀ.[1733]
VĀTACINTĀMAṆI.[1734]
VĀTAJVARACIKITSĀ.[1735]
VAṬAKACŪRṆARASĀYANANIRMĀṆAVIDHI.[1736]
VĀTANIDĀNA.[1737]
VĀTAPRAMEHACIKITSĀ.[1738]
VĀTARAKTACIKITSĀ.[1739]
VĀTAROGACIKITSĀ.[1740]
VĀTAROGANIDĀNA.[1741]
VĀTAROGAŚĀNTI.[1742]
VĀTAŚATAKA.[1743]
VĀTAŚŪLACIKITSĀ.[1744]
VATSAKĀDIKAṢĀYALAKṢAṆA.[1745]

VĀYUJAMALABANDHACIKITSĀ.[1746]
VĀYUPAÑCAKALAKṢAṆA.[1747]
VĀYUŚOBHĀCIKITSĀ.[1748]
VEGARĀJAVIVEKA.[1749]
VIBODHASĀRA.[1750]
VICITRAROGAKĀRAṆATACCIKITSĀKRAMA.[1751]
VIDVADVAIDYARAÑJANĪ. See *Vaidyavijñānasaṃgraha.*
VIDVADVALLABHA.[1752]
VIDYĀPRAKĀŚACIKITSĀ.[1753]
VIJAYĀKALPA.[1754]
VIṂŚATIGULMANIDĀNA.[1755]
VIṂŚATIPAITTYĀDĀNANIDĀNA.[1756]
VIṂŚATIŚLEṢMĀDĀNANIDĀNA.[1757]
VIṂŚATIŚLEṢMĀDĀNANIDĀNACIKITSĀ.[1758]
VĪRABHADRAYANTRA.[1759]
VĪRACINTĀMAṆI.[1760]
VIRECANAKAṢĀYAVIDHI.[1761]
VIRECANAUṢADHAVIDHĀNA.[1762]
VIRECANAVIDHI.[1763]
VIṢACIKITSĀ.[1764]
VIṢAGARBHATAILAVIDHI.[1765]
VIṢAHARACIKITSĀ.[1766]
VIṢAHARAGUṬIKĀNIRMĀṆAVIDHI.[1767]
VIṢAHARAMANTRAUṢADHA.[1768]
VIṢAHARAṆA.[1769]
VIṢAHARATANTRA.[1770]
VIṢAHARAUṢADHA.[1771]
VIṢAKALPA.[1772]
VIṢAMAÑJARĪ.[1773]
VIṢAMUṢṬIKALPA.[1774]
VIṢAMUṢṬITAILAYOGA.[1775]
VIṢĀPAHĀRASTOTRA.[1776]
VIṢAPRATIVIṢACIKITSĀ.[1777]
VIṢAROGAPATHYĀPATHYAVICĀRA.[1778]
VIṢAVAIDYA.[1779]
VIṢODDHĀRA.[1780]
VIŚVANĀTHACIKITSĀ.[1781]
VIŚVANĀTHAPRAKĀŚA.[1782]
VIŚVASṚṢṬIVIDHĀNA.[1783]
VIVEKACANDRA.[1784]
VIVIDHACIKITSĀ.[1785]
VIVIDHAJVARAUṢADHANIRMĀṆĀNUPĀNAKRAMA.[1786]
VIVIDHAKALPA.[1787]
VIVIDHAŚVĀSAKĀSAUṢADHACIKITSĀ.[1788]

VIVIDHAUṢADHANIRMĀṆĀNUPĀNACIKITSĀVICĀRA.[1789]
VIVIDHAVYĀDHICIKITSĀ.[1790]
VIVIDHAVYĀDHICIKITSAUṢADHĀNUPĀNAKRAMA.[1791]
VRAṆACIKITSĀGRANTHA.[1792]
VRAṆAJĀRACŪRṆAPURĀṆAJVARAKAṢĀYANIRMĀṆAVIDHI.[1793]
VRAṆANIDĀNA.[1794]

VṚDDHASŪRYĀRUṆASAṂVĀDA, a dialogue between Sūrya and his charioteer Aruṇa on karmavipāka. This text, dating from the eighteenth century, is of special interest because of its use of case-histories.[1795]

VṚKṢAKALPA.[1796]
VṚTTARATNĀVALĪ.[1797]
VṚTTASAṂKHYĀNIDĀNA.[1798]
VYĀDHIDHVAṂSINĪ.[1799]
VYĀDHINIDĀNA.[1800]
VYĀDHINIRṆAYA.[1801]
VYĀDHISIDDHĀÑJANA.[1802]
VYĀDHITADAUṢADHANIRMĀṆAVICĀRA.[1803]
VYĀDHYAUṢADHĀNUPĀNAPATHYANIRṆAYA.[1804]
VYĀDHYAUṢADHĀNUPĀNAVIDHĀNA.[1805]
VYĀGHRĪKALPA.[1806]
YAKṢMAROGANIDĀNA.[1807]
YĀMALĀṢṬAKATANTRA.[1808]
YANTRAMANTRACIKITSĀVIDHĀNA.[1809]
YAVANACIKITSĀ.[1810]
YOGACANDRIKĀ.[1811]
YOGACANDRIKĀVILĀSA.[1812]
YOGACINTĀMAṆI.[1813]
YOGACŪḌĀMAṆI.[1814]
YOGĀDHIKĀRA.[1815]
YOGADĪPIKĀ.[1816]
YOGAKALPADRUMA.[1817]
YOGAMĀDHAVA.[1818]
YOGAMAHODADHI.[1819]
YOGAMĀLĀ.[1820]
YOGAMĀLIKĀ. See *Yogasāra.*
YOGAMAÑJARĪ.[1821]
YOGĀMṚTA.[1822]
YOGANIDHĀNA.[1823]
YOGAPRADĪPA.[1824]
YOGAPRADĪPIKĀ.[1825]
YOGARĀJAŚATAKA.[1826]
YOGARATNA.[1827]

YOGARATNĀKARA.[1828]
YOGARATNAMĀLĀ.[1829]
YOGARATNASAṂGRAHA.[1830]
YOGARATNASAMUCCAYA.[1831]
YOGARATNĀVALĪ.[1832]
YOGĀRṆAVA.[1833]
YOGASAṂGRAHA.[1834]
YOGAŚAṄKHAVAṬAKA.[1835]
YOGASĀRA.[1836]
YOGASĀRA, also called *Yogamālikā*.[1837]
YOGASĀRĀVALĪ.[1838]
YOGAŚATABANDHA.[1839]
YOGAŚATĀBHIDHĀNA.[1840]
YOGAŚATAPRABANDHA.[1841]
YOGATARAṄGIṆĪ.[1842]
YOGĀVALĪ.[1843]
YOGEŚVARA.[1844]
YONIVYĀPACCIKITSĀ.[1845]

Chapter 5
Authors and works from Sri Lanka

ARIṢṬAMĀLĀ.[1]
ARIṢṬAŚATAKA.[2]

ĀRYADĀSA KUMĀRASIṂHA[3] is the author of the *Kvāthamaṇimālā*, *Kvāthavidhānapaddhati*, *Laṅkābhaiṣajyamaṇimālā*, and *Mahauṣadhanighaṇṭu*.

The *Kvāthamaṇimālā*,[4] a treatise in 500 verses, contains a collection of kvāthas against various diseases; the recipes are preceded by a prākkathana (1–7), giving information on the author; it ends with a parisamāpti (501–503) on the purpose of the book and the date of its completion.

The sources used by the author, mentioned in his Preface (kiñcid vaktavyam), are: *Āyurvedavijñāna*, *Bhaiṣajyakalpa*, *Bhaiṣajyaratnāvalī*, *Bhāvaprakāśa*, *Bhesajjamañjūsā*, *Bṛhannighaṇṭuratnākara*, *Cakradatta*, Caraka, *Dhanvantarivaidyaka*, *Gadanigraha*, Hārīta, *Sārārthasaṃgraha*, *Sārasaṃkṣepa*, Śārṅgadhara, *Śataśloka*, Suśruta, Vāgbhaṭa, Vaṅgasena, *Yogadhāraṇa*, *Yogaratnākara*, and *Yogaśataka*.

The materia medica of this work does not contain many unusual items. Some noteworthy names of plants are: caturasrā (461), gomeṇḍa (458), masaka (299), paiśācekṣu (23; 279), pañcanālīlatā (496), puṣyalatā (497), puṭakoṣa (68), śrīkaṇṭha (299), sugandhamudgā (25), sugandhivacā (113),[5] and tāmraparṇa (68).[6]

The *Kvāthamaṇimālā* was completed in A.D. 1939/40.[7]

The *Laṅkābhaiṣajyamaṇimālā*[8] is a collection of recipes, arranged in twelve chapters (aṃśa): (1) an uddeśa of an introductory character (10 verses); (2) kalka (55 verses); (3) kvātha (60 verses); (4) phāṇṭa (12 verses); (5) cūrṇa (98 verses); (6) guṭikā (272 verses); (7) rasāyana (146 verses); (8) saṃdhāna (39 verses); (9) taila (125 verses); (10) pralepa (122 verses); (11) miśrabhaiṣajya (35 verses); (12) saṃmiśra (245 verses); an upasaṃhṛti (32 verses) is appended to the last chapter. Both āyurvedic and iatrochemical formulae form part of this therapeutic compendium.

The author mentions a large number of unusual names of plants, as well as various plants and substances of vegetable origin that were introduced at a later date and are absent from the classical texts.

Noteworthy names are: agramālī (12.171), ākallaka (9.72), ākārakarabha (2.6 and 35; 3.44; 5.84 and 90; 6.147; 10.60; 12.3), akarkara (5.54; 12.108), āmragandha (9.34),[9] āmragandhika (10.51), anīśā (5.71; 12.34), anitrā (5.50), anojā (10.28,

51, 108, 112), āraṇyairaṇḍa (9.2), arudrā (9.117), bāhubhūti (5.60), bhaṅgā (6.52), bhīrālu (12.96),[10] bhūmiphala (7.23), caināluka (5.29, 39, 55; 12.9), cainamūla (5.12), citrabhaṇṭā(latā) (6.107 and 158; 12.2, 67, 123), citrabhaṇṭākī (3.43; 6.31), citrabhaṇṭikā (6.25 and 189), copacīnī (3.41 and 48; 7.6, 19, 42, 56), curīndra (12.30), dakaśarbaraka (9.34), deśimūla (6.209), devajīraka (2.21 and 42), dharmapattana (6.150 and 243; 9.65),[11] dhūmadalā (12.231),[12] dīrghakīla (9.1),[13] drukilima (9.51),[14] drumibīja (6.27 and 192), gandhaphalī (5.12; 9.60),[15] gañjā (6.207; 7.19; 8.25), gomeṇḍa (6.231), gopīlu (6.222 and 224), haladī (10.18),[16] haṭṭavilāsinī (9.76),[17] hemabhaṇṭa (3.23), hemabhaṇṭā (8.11), jaillikabīja (9.91), kaja (6.125; 9.47), kākūṇa (12.95), kapitthapattrī (5.82),[18] karpaṭikā (9.34), kartarikā (6.36), kaukīna (10.118), khākhadāphala (7.5), khalakṣīrī (5.14), kharājapuṣpa (12.37), khāsatila (7.20), khurāsānī (12.20), kolāmapattraka (12.231), kṛṣṇabola (10.46 and 52), kṛṣṇaśārbaraka (6.79), krūradru (3.10; 4.1; 6.79 and 197; 8.30 and 36; 9.57; 10.23; 11.19; 12.13, 78, 138), kṣīramāṃsā (7.125; 12.105, 116, 124, 126), kucumba (10.86; 12.163), kucumbaka (9.98), kucumbakī (7.20), kūrcālu (3.2, 5, 7; 6.73 and 78; 11.3 and 29), kuṣṭhagandhinī (7.28),[19] kutumbā (12.230), lābhāṅgī (12.106), latāphenila (9.28), lavaṅgā (5.79 and 91; 7.28), madanakāma (7.44), madhuvallarī (12.108),[20] mahābharīvacā (12.21), mahījambuka (4.6),[21] mālikā (6.78),[22] māṃsavera (6.1), mārjāramohinī (6.5; 9.120; 10.69), māyāphala (6.24 and 147; 12.20),[23] mṛgakṣīrī (9.92), nāgamarica (10.93), navasandhidruma (12.132), nutāndhā (10.92), pañcapattrī (3.23),[24] pītarohiṇī (7.22 and 53),[25] puṣpadehikā (6.79), raktamālyā (10.81), śaśakapriyā (6.58 and 67), senāpattrī (12.126), śivajīraka (6.89), sudhāmūlī (7.20),[26] śukabhūruha (9.34),[27] sūrīpattra (9.76), svarṇapattrī (6.19; 12.30),[28] svarṇavarā (5.59; 6.132; 7.29; 8.1), śvetanīpa (10.97), takkola (5.87 and 88; 7.29; 12.139),[29] talla (9.84), tryasravallī (12.125), vallarīphenila (3.28), valliphenila (3.25), vanadhūlaka (3.38), vanaśarbara (6.78), viṣadhūlī (12.96), vratatiphenila (9.73), vṛtyeraṇḍa (9.76; 12.213), yakṣanāgaraṅga (6.149, 208, 213), yakṣāri (6.186), and yūthikaparṇikā (10.54).[30]

Noteworthy names of inorganic substances are: ākhupāṣāṇa (12.50), aśvapāṣāṇa (12.42), khallamajjā (2.12; 5.59; 6.169), marmaropala (6.264), śilāmajjā (6.148 and 211), śilāsnāru (6.148 and 211), śivānta (12.82), śivāntapāṣāṇa (12.42), and sphuṭī (10. 120).

Opium is repeatedly prescribed; one recipe contains a substitute for opium (2.50–55: ahiphenapratinidhi).

One formula was given by some deity to king Buddhadāsa (5.73–77); another formula derives from a sage called Yakṣaujas (6.1–15).

Remarkable names of diseases are: caurikā (10.55: scabies), khoratā (5.68), khoravāta (3.35), klomaroga (2.18), paribhavavyādhi (6.255), phiraṅga (5.34 and 58), phusphusaroga (2.18), plīhasphīti (3.1), pūyameha (12.26), and saṃkrāmakagada (6.12: infectious disease).

The *Mahauṣadhanighaṇṭu*[31] is a short nighaṇṭu written in Sanskrit.

The work enumerates the names and properties of a number of medicinal substances. It consists of 429 verses, arranged in seven chapters. The first seventeen verses are of an introductory nature. The seven chapters are: (1) mahauṣadhādivarga (141 verses); (2) candanādivarga (49 verses); (3) bilvādivarga (67 verses); (4) phalavarga (42 verses); (5) svarṇādivarga (51 verses); (6) saṃmiśravarga (54 verses); (7) saṃkhyāvarga (25 verses on groups of drugs).

Noteworthy drugs described are: ahiphena (1.128–132), anannāsa (pineapple; 4. 37–39), bhaṅgā (1.123–127), cāhā (tea; 6.12–14), eraṇḍacirbhiṭa (4.40–42),[32] īṣadgola (6.10–11),[33] kāphī (coffee; 6.15), kastūrī (2.33–38),[34] kharjūrī (4.32–36),[35] raktamarica (6.42–43),[36] śatamalla (5.46–51), trikārṣika (7.17),[37] three types of trikaṭuka (7. 1–4),[38] trimada (7.16),[39] and three types of triphalā (7.7–12).[40]

The *Mahauṣadhanighaṇṭu* has been influenced by the *Bhāvaprakāśanighaṇṭu*.[41] The work was written at the request of K.D. Senāratna for the benefit of Āyurvedic practitioners in Sri Lanka.[42]

The upasaṃhṛti at the end of the *Laṅkābhaiṣajyamaṇimālā* and the prākkathana of the *Kvāthamaṇimālā* provide information on the author, who belongs to the twentieth century. He was born in Devanagara and studied at the university called Mahāmantrīndra in Rohaṇa, on the banks of the Nīlavalāhaka river.[43] After completing his studies he settled in Kolamba (Colombo), where he became the chancellor (adhipati) of the Śrī Siddhārtha Āyurvedic College.

The author is a Buddhist, as is obvious from the maṅgalas of the *Kvāthamaṇimālā*, *Laṅkābhaiṣajyamaṇimālā* and *Mahauṣadhanighaṇṭu*.

Āryadāsa Kumārasiṃha wrote a large number of books in Siṃhala and Sanskrit. He translated the *Vṛttaratnākara* and *Śārṅgadharasaṃhitā* into Siṃhala, composed kāvyas in Sanskrit and Siṃhala, rendered Siṃhala kāvyas into Sanskrit, etc.[44]

AṢṬAPARĪKṢĀ.[45]

ATTHADASSI is mentioned as the author of a *Mañjūsē*.[46] J. Liyanaratne has convincingly demonstrated that the references in a number of publications to this *Mañjūsā* by Atthadassi derive from an incorrect statement by G.P. Malalasekera,[47] who based himself on a publication of D.M. De Z. Wickremasinghe,[48] who cites in his turn a report by W.R. Kynsey.[49] The attribution of the *Bhesajjamañjūsā* to Atthadassi has therefore no factual basis.

AUṢADHAMUKTĀHĀRA.[50]
BĀLAGRAHAŚĀNTI.[51]
BHAIṢAJYAMĀLĀ.[52]
BHESAJJAKHANDAKA.[53]

BHESAJJAMAÑJŪSĀ.[54] This treatise in verse, the only medical work written in Pali, is arranged in sixty chapters (paddhati). Chapters one to eighteen are concerned with general concepts (upaññāsavidhi), drugs (dabbādi), regimen (sadācāra), disorders caused by the suppression of the natural urges (agāmiroganisedha), articles of food (annavyañjana), fluids (davadabba), poisoned foods (savisāhāra), antidotes (paṭivisa), disturbances of digestion (āmabheda), classification of drugs (gaṇa), major treatments (mahākamma), minor treatments (cullakamma), unfavourable omina and other signs

(five chapters: dūtāriṭṭha, gamanāriṭṭha, supināriṭṭha, uppātāriṭṭha, rogāriṭṭha), and general causes of diseases (rogasāmañña). Chapters nineteen to fifty-eight deal with diseases and their treatment; the order of the diseases differs from the arrangements found in other āyurvedic treatises. Chapter fifty-nine is about particular cures. Chapter sixty describes tonics (rasāyana).[55]

Drugs of vegetable origin prevail over rasayogas in the chapters on treatment.[56]

It is often assumed that the work was compiled for the use of Buddhist monks,[57] which would explain that diseases of women and children, charms, and incantations are excluded.[58] J. Liyanaratne[59] disagrees with this view, based, in his opinion, on a wrong interpretation of the introductory stanzas. He claims that the treatise was meant for Buddhist monks and medical practitioners in general; its aim was to help people to maintain their health and enable them to tread the path indicated by the Buddha.[60]

The commentary on the work says that it is a Pali version of the medical science derived from the tradition of Mahābrahmā, Dakṣa, Prajāpati, etc., and expounded in the *Yogārṇava*, *Cintāmaṇisannaya*, *Yogaratnākara*, etc. The major part of the verses on nidāna are actually drawn from the *Aṣṭāṅgahṛdaya*,[61] which is, in general, the most important source, besides the *Carakasaṃhitā*, *Suśrutasaṃhitā*, *Siddhasāra*, *Mādhavanidāna*, *Cakradatta*, and *Vaṅgasena*.[62] Among less well known sources are the *Assinasaṃhitā*,[63] *Bindusāra*, *Bhāradvājīya*, *Kumārasaṃhitā*, *Mahāyāna*, *Nārāyaṇīya*, and *Tikicchāmata*.[64]

The influence of Indian medical works on the author is understandable in the light of the efforts of king Parākramabāhu II, who had many Indian books and scholars brought to his country, having its cultural uplift in mind.[65]

The *Bhesajjamañjūsā* became well known in many Buddhist countries, including Burma, Thailand and Cambodia, and is said to have been translated into several languages.[66] It is mentioned in a Burmese inscription in Pagan, dated A.D. 1442.[67]

The *Bhesajjamañjūsā* was one of the sources of Āryadāsa Kumārasiṃha's *Kvāthamaṇimālā*.

The *Bhesajjamañjūsā* was written by the Chief Elder (Mahāsthavira), head of the Fraternity of the Five Colleges (Paspiruvanmūlasāmī or Pañcapariveṇasamūhanātha), a Buddhist monk of brāhmaṇa origin.[68]

The authorship of the *Bhesajjamañjūsā* is by some ascribed to Atthadassi Thera;[69] J. Liyanaratne has proved that this claim is unfounded.[70] The colophon of one MS mentions Anomadassi Saṅgharāja as the name of the author. This Anomadassi has been regarded as the one who wrote the *Daivajñakāmadhenu*, but this identification is rejected by J. Liyanaratne. Another Sinhalese scholar claimed, without any evidence, that the *Bhesajjamañjūsā* was composed by the Pañcamūlapariveṇādhipati Maṃgala Saṃgharāja Māhimi.[71]

The *Bhesajjamañjūsā* was completed in A.D. 1261, during the reign of king Śrī Paṇḍita Parākramabāhu (Parakkamabāhu) II of Daṁbadeṇiya (A.D. 1236–1270).[72] The year of completion, clearly mentioned in its colophon, is confirmed by the colophon of the sannaya.[73]

A Sinhalese interverbal paraphrase (sannaya)[74] on the *Bhesajjamañjūsā* was written by Saraṇaṃkara.[75] The colophon states that the commentaries and interverbal paraphrases on the work had become extinct in the course of time, which induced king Vīraparākrama Narendrasiṃha (A.D. 1707–1739), who was in the possession of the book of gāthās, to invite the Buddhist prelate Välivița Saraṇaṃkara (A.D.1698/99–1778),[76] resident of the Uposathārāma, to render that work into Sinhalese. The colophon adds that this Saraṇaṃkara, with the assistance of his teacher Palkuṁburē Atthadassi Thera and his own pupils, wrote a sannaya on chapters one to eighteen and translated the remaining chapters into Sinhalese.[77] This work was completed in A.D. 1734. The king was so pleased that he presented Saraṇaṃkara with an elephant.[78]

Diyahunnata Dhammajoti, a pupil of Saraṇaṃkara, rendered the *Bhesajjamañjūsā* into Sinhalese; this work is known as the *Yogapiṭakaya*,[79] quoted in the *Bhesajjamañjūsāsannaya*.

The *Bhesajjamañjūsāsannaya* quotes a large number of earlier authorities and works. Their names or titles are (in Sanskrit):[80] Agniveśa, *Ālambāyanīya*, *Amitaprabhīya* or *Amṛtaprabhīya*, *Amṛtadhārā*, *Amṛtamālā*, *Amṛtāñjali*, *Asitasaṃhitā*,[81] *Aṣṭāṅgasaṃgraha*, *Aśvinīsaṃhitā*, Aurabhra, *Bhadraśaunakīya*, Bhāluki, Bhañjaya,[82] Bhāpekha,[83] *Bhāradvājīya*, Bhela, *Bhiṣaṅmuṣṭi*, *Bhojarājīya*, Bindusāra, Buddhavaideha, Cakṣuṣyeṇa, Caṇḍāgra,[84] Candraṭa, Caraka, *Cikitsākalikā*, *Cikitsāmṛta*, *Dravyāvalī*, *Gautamīya*, Hariścandra, Hārīta, *Hiraṇyākṣīya*, *Jatūkarṇīya*, *Kāmaratnamālā*, *Kaṅkāyanīya*, *Kāśyapīya*, *Kātyāyanīya*, Kharanāda, *Kṛṣṇapurāṇa*,[85] Kṣārapāṇi, *Kumārasaṃhitā*, *Mādhavanidāna*, *Mahākāśyapīya*, *Mahābāhaṭa*,[86] *Mahāyāna*, Māṇibhadra,[87] *Mūlāgama*, Nāgārjuna, *Nārāyaṇīya*, *Pāṭhaśuddhi*, *Prayogakoṣa*, *Prayogaratnākara*, *Prayogaratnāvalī*,[88] *Prayogārṇava*, *Prayogasaṃgraha*, *Prayogasamuccaya*, *Śākyamata*, *Sārasaṃgraha*, *Siddhayoga*, *Siddhayogasamuccaya*, Suśruta, *Tantrasārasaṃgraha*,[89] *Vaidarbhīya*, *Vaidehīya*, Vararuci, *Vṛddhagarga*, *Vṛddhakāśyapīya*, *Yāvanakīya*,[90] *Yogakoṣa*,[91] *Yogamālā*, *Yogapiṭaka*,[92] *Yogaratnasamuccaya*, *Yogārṇava*,[93] *Yogasamuccaya*, *Yogaśataka*, and *Yogāśīti*.[94]

BUDDHAPUTRA, the chief monk of the Mayūrapāda-pariveṇa, wrote two medical works in Sinhalese,[95] the *Prayogaratnāvaliya* and the *Yogārṇavaya*.[96]

The same author[97] composed the *Pūjāvaliya*, a religious work, referred to in the *Yogārṇavaya* and therefore earlier.[98]

The *Prayogaratnāvaliya*[99] and *Yogārṇavaya*,[100] which deal largely with therapy,[101] resemble the *Sārasaṃgraha* and have a great deal in common with Ravigupta's *Siddhasāra*.[102] Both works are quoted in the *Bhesajjamañjūsāsannaya*.

Buddhaputra lived in the thirteenth century,[103] in about the same period as the author of the *Bhesajjamañjūsā*. He mentions in the *Yogārṇavaya* that he received his daily necessities from Śrī Saṅghabodhi Śrī Bhuvanekabāhu, i.e., king Bhuvanekabāhu I (A.D. 1273–1284).[104]

DRAVYAGUṆADĪPANĪ.[105]

RĀJAGURU KAVICANDRA was the author of the *Abhinavamādhavanidāna*,[106] an abridged and revised version of the *Mādhavanidāna*.[107]

The work is arranged in sixty-four chapters, while their number is sixty-nine in most editions of the *Mādhavanidāna*. The order of the diseases is the same as in Mādhava's treatise. The text of the *Abhinavamādhavanidāna* shows variants and some minor additions when compared with the *Mādhavanidāna*. [108]

Differences with the latter are: the combination of vātarakta and ūrustambha, mūtrāghāta and aśmarī, yonivyāpad and yonikanda in one chapter; a single chapter deals with śārīravraṇa, sadyovraṇa and bhagna; sūtikāroga, stanaroga and stanyaduṣṭi are also described in one chapter. A chapter on śūkadoṣa is absent, although a term designating this group of diseases [109] occurs at the appropriate place in the rogānukramaṇa at the end of the work. Added are chapters on vegagraha [110] and trayodaśasanni, [111] as well as a list of the diseases described (rogānukramaṇa). [112]

The *Abhinavamādhavanidāna* was written by Rājaguru Kavicandra of the Śrī Kātyāyana family at the behest of the great king Soḷendrasiṃha Rājādhirāja of the solar dynasty. [113]

Paṇḍit Rājaguru Kavicandra is mentioned as the founder of a line of teachers in the *Vaidyacintāmaṇibhaiṣajyasaṅgrahaya*, [114] translated from Tamil̲ into Siṃhala by an author called Soḷendrasiṃha or Śeḷendrasiṃha or Śeḷasiṃha. [115] The editions of this work mention that Rājaguru Kavicandra belonged to a pupillary succession (guruparamparā) of vaidyas who were holding the office of applying unguents to the royal person. He is described as the twin-brother or contemporary (sahajāta) of Rāmacandra Vaidyaratna, who came to the city of Jayavardhana [116] in Sri Lanka from the Coḷa country in India. The MSS of the same work, however, mention a Rāmacandra Miśra, adding that he came to Sri Lanka from Kṣīrabhuktideśa.

It has been suggested that Rājaguru Kavicandra may prove to be the same as Rājaguru Śrī Candra, the author of the *Sārasaṃkṣepa*, a work that may be regarded as the therapeutic complement to the *Abhinavamādhavanidāna*. [117] The author of the *Sārasaṃkṣepa*, however, is called Rājaguru Śrīcandrabhūsurasūri, and the order of the diseases in his work differs from the arrangement in the *Mādhavanidāna*.

The information on the chronological position of Rājaguru Kavicandra in the *Vaidyacintāmaṇibhaiṣajyasaṅgrahaya*, which points to the Jayavardhana period (fifteenth-sixteenth centuries), conflicts with the colophon of the *Abhinavamādhavanidāna*, which says that it was written during the reign of Soḷendrasiṃha Rājādhirāja. Soḷendrasiṃha may be an epithet and refer to one of the two Coḷa kings who were called Rājādhirāja, namely Rājādhirāja I (A.D. 1044–1054) [118] and II (A.D. 1173–1182). [119]

KUMĀRAUṢADHADARŚANA. [120]

MĀDHAVANIDĀNASĀRA, a work in Sanskrit verse, inspired by the *Mādhavanidāna*, was written on the request of Mahādhirāja Soḷendrasiṃha by an author referring to himself as the Rājaguru Kavicandrabhiṣagvara. It is assigned to the Koṭṭa (Jayavardhanapura) period (A.D. 1412–1550). The maṅgala of this treatise is identical with that of the *Sarasvatīnighaṇṭu* and praises Nārada. [121]

Moggallāna was the author of the *Abhidhānappadīpikā*. [122] This lexicon in Pāli, inspired by the *Amarakoṣa*, [123] deals with plant names and related subjects in its araññavagga, which forms section five of part two of the work. [124]

The author, Thera Moggallāna of the Vilgammūla fraternity, was a resident of the Jetavana Mahāvihāra [125] in Pulastipura (Polonnaruwa), built by king Parākramabāhu I (A.D. 1153–1186). [126] He lived during the latter part of this king's reign and is probably different from his namesake and contemporary, the grammarian Moggallāna, who wrote the *Moggallānavyākaraṇa*. [127]

PRAYOGASAMUCCAYA. [128] A work of this name is quoted in the *Bhesajjamañjūsāsannaya*.

PRAYOGASAMUCCAYASAṂKṢEPA. [129]

RĀJASUNDARA was the author of the *Vaidyottaṃsa*, a twentieth-century work in Sanskrit. [130]

RĀMACANDRA, a brāhmaṇa, originating from Āndhradeśa, [131] was the author of the *Pratikarmasaṃgraha*. [132]

RATANAPĀLA was the author of the *Yogasaṃgraha*, a metrical work in Sanskrit. [133]
ROGĀRIṢṬAYA, a treatise on nidāna. [134]

ŚAILASIṂHA or Śailendrasiṃha was the author of the *Vaidyacintāmaṇibhaiṣajyasaṃgrahaya*, a comprehensive medical work in Sinhalese prose, with a large number of Sanskrit verses, quoted from earlier treatises. Śailasiṃha's main source was, as indicated in the introductory verses, a Tamil̲ work, probably called *Vaidyacintāmaṇi*, and based, in its turn, on a Sanskrit original, which may be the treatise of this title by Vallabhendra.

Śailasiṃha's work deals with aetiology (nidāna), purification of medicinal substances (dravyaśuddhi), rasayogas, and decoctions (kaṣāya). Surgical treatments are described, but also charms and offerings.

Information about the author and his lineage is given at the beginning of the treatise. Śailendrasiṃha was a pupil of Candraśekhara, who was a pupil of Siṃhabhaṭṭa. The latter belonged to a line of teachers going back to the brāhmaṇa Paṇḍita Rāmacandra Vaidyaratna, who came to Jayavardhana from the Cōḷa country.

Śailendrasiṃha also wrote the *Vaṭṭōruvedapota*, a formulary of medical prescriptions, in which he states to have been the physician to king Vīraparākrama Narendrasiṃha (A.D. 1707–1739), who, in recognition of his services, bestowed on him the title of Rājavaidyaśekhara. [135]

DON HENDRIK SAMARATUṄGA was the author of the *Yogamuktāvalī*, a Sanskrit treatise, accompanied by a Sinhalese translation, in 322 ślokas, arranged in fifteen chapters.

This work, written at the request of Ḷuvis Prērā Raṇasiṃha, was completed in A.D. 1855.[136]

SĀRĀRTHASAṂGRAHA,[137] a comprehensive medical treatise, in the form of a saṃhitā, written in Sanskrit. It consists of 2,600 verses, mostly in the śloka metre, arranged in forty-eight chapters.

Chapters one to three are concerned with (1) omina relating to the messenger, etc. (dūtalakṣaṇādi), (2) groups of drugs (dravyagaṇa), and (3) diet (annapānavidhi). Chapters four to ten deal with (4) treatment of pregnant women, (5) children's diseases, and (6–10) diseases of the head, eyes, ears, nose and mouth. Chapters eleven to forty-one are about the remaining diseases, arranged in an order that is peculiar to this treatise. Chapter forty-two is about treatment in general, chapter forty-three about pañcakarman, and chapter forty-four about sudation (sveda). The last four chapters are concerned with surgery, toxicology, antidotes, rasāyana and vājīkaraṇa.

The origin of āyurveda is ascribed to Brahmā.

The *Sārārthasaṃgraha* is said to show many similarities with the works of Vāgbhaṭa and Suśruta. Medical works from South India may also have influenced the author.[138] The work, described as a compilation, in conformity with its title, also contains original information. Diagrams representing the human body, the bodies of the elephant and the horse, and the bodies of some birds, are given in the treatise, along with directions as to the vital points to be avoided in surgical operations. Incantations and charms are also found in it.[139]

The *Sārārthasaṃgraha* was one of the sources of Āryadāsa Kumārasiṃha's *Kvāthamaṇimālā*.

The Sinhalese tradition attributes the *Sārārthasaṃgraha* to an early king, Buddhadāsa (about A.D. 398–426),[140] presented in the *Cūḷavaṃsa* as a highly skilled physician, who made a sāratthasaṃgaha of all the medical sciences.[141]

The Pali chronicles report marvellous cures effected by this king, who systematically erected hospitals in the villages and shelters for crippled and blind people. Buddhadāsa was also reputed for his ability to treat snake-bites.[142] His army disposed of military surgeons and he appointed physicians for the war elephants and horses.[143]

An unknown author wrote a Sinhalese sannaya on the *Sārārthasaṃgraha* in later times.

The *Sārārthasaṃgraha*, although attributed to Buddhadāsa, has probably been composed at a later date, since Vāgbhaṭa, whose works were used by the author, is posterior to Buddhadāsa.[144]

SĀRASAṂGRAHA.[145] A work of this title is quoted in the *Bhesajjamañjūsāsannaya*.

SARASVATĪNIGHAṆṬU,[146] a medical lexicon of 348 verses, arranged in six chapters.[147] The maṅgala of the *Sarasvatīnighaṇṭu* is identical with that of the *Mādhavanidānasāra*.

The author of the work is unknown,[148] but it is often fathered upon Śāśvata,[149] who wrote the *Anekārthasamuccaya*.[150]

The *Sārasvata(nighaṇṭu)* is quoted in Meghadeva's commentary on the *Mādhavadravyaguṇa*.

ŚATAŚLOKA.[151]
The *Śataśloka* was one of the sources of Āryadāsa Kumārasiṃha's *Kvāthamaṇimālā*.

SIDDHAUṢADHANIGHAṆṬU.[152]

SIDDHISĀRA, in Sanskrit verse and Sinhalese prose. This work appears to consist of excerpts from the *Sārārthasaṃgraha* and *Varayogasāra*.[153]

B.L.S. SILVA KAWITILAKA was the author of the *Gadaviniścaya*.[154]

SĪPPUKULAMĒ DĪPAṂKARA or Yatīndra Dīpaṃkara was the author of the *Vanavāsanighaṇḍuva*,[155] a glossary of the names of medicinal plants in one hundred and four Sinhala verses. The work dates from the eighteenth or nineteenth century.[156]

ŚRĪCANDRA wrote the *Sārasaṃkṣepa*, a work on therapy in Sanskrit, accompanied by a paraphrase in Sinhalese. The *Sārasaṃkṣepa* is a compilation, containing copious quotations from earlier works.[157]

A list of diseases (rogānukrama) and other subjects dealt with is given at the beginning of the work: jvara, atisāra, grahaṇī, vahnimandatā (= agnimāndya), ajīrṇa, visūcī, raktapitta, mūrchana, kāsa, śvāsa, hikkā, kṣaya, madātyaya, aruci, seka, tṛṣṇā, chardi, hṛdgada, gudavyādhi (= arśas), udāvarta, mūtrakṛcchra, pramehaka, vidradhi, vṛddhi, gulma, śūla, udara, śvayathu, ślīpada, pāṇḍu, kāmalā, visarpaka, kuṣṭha, krimigada, vraṇa, bhagandara, granthyādi, kṣudragada, masūrī, śītapittaka, kuṇḍalā, agnidagdha, bhagna, upadaṃśaka, asṛgdara, asthisrāva, pavanāmaya (= vātavyādhi), vātarakta, garbhavatīgada (disorders occurring during pregnancy), śiśugada (= bālaroga), bālagrahākrama, unmāda, apasmṛti, netraroga, karṇaroga, nāsāroga, mukharoga, galāmaya, śiroroga, viṣa, rasāyana, and vājīkaraṇa.[158]

The maṅgala shows the author to be a Hindu.[159]

A *Sārasaṃkṣepa* is cited in Anantakumāra's *Yogaratnasamuccaya*. The *Sārasaṃkṣepa* was one of the sources of Āryadāsa Kumārasiṃha's *Kvāthamaṇimālā*.

DON SIMON TILLEKERATNE, a Muḍaliyār of Matara, compiled his *Bhesajjunidāne* about A.D. 1760 or a little later. This large work about diseases and their treatment is arranged on the same lines as Śailasiṃha's *Vaidyacintāmaṇibhaiṣajyasaṃgrahaya*. It is written partly in Sanskrit verses, quoted from earlier treatises, with comments (sannaya) by the author. An interesting feature is the description of eight varieties of phiraṅga (syphilis).[160]

VAIDYĀLAṂKĀRASAṂGRAHA, anonymous, in Sanskrit.[161]
VARASĀRĀRTHASAṂGRAHA.[162]

VARAVĀKYA, a collection or recipes; this work is a Sanskrit translation of a Siddha medical text.[163]

VARAYOGASĀRAYA.[164]

VĀSUDEVANIGHAṆṬU.[165]

VIYARUVISAÜTPATTIYA, i.e., 'the origin of the poison of madness', composed in Sinhalese prose and verse, copiously interspersed with Sanskrit stanzas. This treatise opens with the story of Suśruta's asking his teacher Dhanvantari about the origin of madness; it mentions a bhikkhu Sumana, who suffered from hydrophobia. Dhanvantari's explanation forms the main portion of the work. Subjects also dealt with are: the creation of the world; the rise of the Ikṣvāku dynasty, and the cow-slaughter, permitted by the kings of this dynasty, as the cause of diseases; the origin of madness in animals; the effects of the bite of rabid animals. The colophon states that the system of medical treatments expounded in this work was practised by a brāhmaṇa called Śivagupta, who had come from Bengal and lived in Sri Lanka in the year A.D. 1697/98.[166]

VRAṆAROGACIKITSĀ.[167]

YOGADHĀRAṆA.[168] This work was one of the sources of Āryadāsa Kumārasiṃha's *Kvāthamaṇimālā*.

YOGAMĀLĀ.[169] A text of this title is quoted in the *Bhesajjamañjūsāsannaya*.

YOGARATNĀKARAYA,[170] a comprehensive treatise in Sinhala verses of various metres, based on classical āyurvedic texts.[171] The work consists of more than 4,500 verses,[172] arranged in forty-eight or forty-nine chapters,[173] dealing with the origin of āyurveda, groups of drugs, the treatment of pregnant women and children, the diseases from head to feet, gynaecology, surgery, and the examination of the pulse. The contents resemble those of the *Prayogaratnāvaliya*, *Varayogasāraya* and *Yogārṇavaya*.[174]

The *Yogaratnākaraya* mentions a work called *Mañjūsā*[175] and is referred to as *Yogaratnākara* in the *Bhesajjamañjūsāsannaya*.

It was written by a Buddhist monk who was born in Monaragammana, Mōdarogam or Mōragammana.[176]

The date of composition is disputed, but it may be that the treatise was completed in the thirteenth century.[177]

YOGAŚEKHARA.[178]

Chapter 6
Authors and works on veterinary medicine

ABHINAVACANDRA:[1] *Hayaśāstra*.[2]

AGNIPURĀṆA. Chapter 287[3] deals with elephants, their diseases, and the treatment of these diseases, as taught by Pālakāpya to Lomapāda.

The diseases mentioned are: pākala, pāṇḍuroga, śiraḥśūla, ānāha, mūrchā, pādaroga, vepathu, atīsāra, utkarṇaka, karagraha, galagraha, mūtrabhaṅga, tvagdoṣa, kṛmikoṣṭha, gulma, kaṭuroga, madakṣīṇa, and netraroga.[4] Chapter 288 is devoted to aśvaśāstra, as exposed by Dhanvantari; chapters 289 and 290 are concerned with the same subject, as taught by Śālihotra to Suśruta.

Chapter 291 is about elephants again; Śālihotra is the teacher.[5]

AGNIVEŚA: *Hastiśāstra*.[6] Agniveśa or Agniveśya is mentioned as an authority on gajaśāstra in a number of texts on the subject.

AMAREŚVARA: *Siddhayogacikitsā*.[7]
AŚVACIKITSĀŚĀSTRA.[8]
AŚVĀDICIKITSĀ.[9]
AŚVĀDIGUṆA.[10]
AŚVADOṢANIRŪPAṆA.[11]
AŚVAHṚDAYA.[12]
AŚVALAKṢAṆA.[13]
AŚVALAKṢAṆAKRIYĀDI.[14]
AŚVALAKṢAṆAŚĀSTRA.[15]
AŚVANETRAPARĪKṢĀ.[16]
AŚVAPARĪKṢĀ.[17]
AŚVAPARĪKṢĀLAKṢAṆA.[18]
AŚVAPARĪKṢAṆA.[19]
AŚVAPARĪKṢĀṬĪKĀ.[20]
AŚVAPRAŚAṂSĀ.[21]
AŚVAŚĀLIHOTRA.[22]
AŚVASĀRA.[23]
AŚVAŚĀSTRA.[24]
AŚVATANTRA.[25]
AŚVĀYURVEDA.[26]

BASAVA: *Śivattvaratnākara.*[27] One chapter (VII.11: 227 verses) is devoted to the science of elephants; two chapters (VII.12: 224 verses; VII.13: 255 verses) are concerned with the science of horses.

The chapter on elephants deals with the mythical origin of elephants[28] (4–8), the forests where wild elephants are to be found (9–16),[29] the characteristics of elephants according to the forest where they have been captured (17–27ab), six types of elephants according to size (27cd-30),[30] the types called bhadra, manda and mṛga (31–39), nine types with regard to their aṃśaka (44cd-70),[31] the types of character (sattva; 71–82), breeds (anvaya; 83–90), elephants fit for employment, especially by the king (91–112), the elephant during rut (gandhahastin; 113–123ab), anatomy and related subjects (123cd-141), auspicious and inauspicious marks (142–202),[32] the fluid that exudes from an elephant's temples when it is on must (mada; 203–204), the thrusts of an elephant with its tusks (dantāghāta; 205–212),[33] auspicious characteristics of a female elephant (213–218ab), and the praise of elephants (218cd-225); the chapter ends with a summary of its contents (226–227ab).

The first chapter on horses describes the origin of horses, donkeys and mules (1–21ab), the classification of horses according to their colour (varṇa; 21cd-33ab), the constitutions (prakṛti; 33cd-41), the eight types of characteristics of horses (42),[34] the characteristics with regard to their body and the sizes of its parts (43–70ab) and the colour of the hair (70cd), horses of more than one colour[35] (71–92), bodily defects (93–101ab), the sheens (chāyā; 101),[36] trot (102), smell (103–104) and ways of neighing (105), the character types of horses (sattva; 106–107),[37] the whirls of hair (āvarta) and their meaning (108–185),[38] the determination of the age of horses by means of their teeth (186–189), the characteristics of a long-lived horse (190), the determination of the span of life by means of lines on the nostrils (protharekhā; 191–208), and auspicious and inauspicious characteristics (209–224).

The second chapter on horses is concerned with horses coming from various regions (1–140), auspicious marks again (141–145), topics relating to the mounting of a horse and its training (146–169ab), the regional divisions (kṣetra, daśā) of the body of a horse (169cd-178ab), and the deities presiding over the different parts of the body of a horse (178cd–186ab). The remaining part of the chapter is about chariots (192–197), bullocks (198–226ab), cows (226cd–239),[39] and the treatment of some diseases in the animals mentioned (240–253ab).

BHOJA:[40] (a) *Rājamārtaṇḍa*; (b) *Śālihotra*; (c) *Yuktikalpataru.*

(a) The *Rājamārtaṇḍa* contains a chapter on veterinary medicine.[41]

(b) The *Śālihotra*[42] consists of 238 verses, which are for the greater part also found in Nakula's *Aśvacikitsita.*[43]

The subjects dealt with are: horses of uniform and mixed colours (1–7), the whirls of hair (āvarta or bhramara; 8–27), the measures of the various parts of a horse's body (aśvapramāṇa; 28–34), the speed (vega; 35–44), rules for riding (ārohaṇa; 45–56), pathophysiology (śleṣmaraktalakṣaṇa; 57–80),[44] bloodletting (raktamokṣaṇa; 81–91), the regimen during the seasons (ṛtucaryā; 92–117), errhines (nasya; 118–122), poultices (piṇḍa; 123–128), the construction of stables (hayāgāra; 129–131),[45] and some recipes (132–138).

Some verses are accompanied by short glosses.

(c) The *Yuktikalpataru*[46] contains sections on horses (aśvayukti; 181–197), elephants (gajayukti; 198–206), bulls (vṛṣayukti; 206–210), buffaloes (mahiṣayukti; 210–211), deer (mṛgayukti; 211–212), dogs (sārameyayukti; 213–214), and goats (ajayukti; 214–215).[47]

The subjects of the aśvayukti are: the origin of horses and the various breeds, the measures of the various parts of their body, their colours, the determination of their age, various auspicious characteristics, the whirls of hair, major defects, signs foreboding death, rules for training and riding, the speed of horses, bloodletting, the regimen during the seasons, and various types of horses.

The gajayukti deals with types (jāti) of elephants, their qualities, and their defects. The yuktis on bulls, etc., describe types of these animals and their good or bad qualities.

The verses on horses are partly also found in Bhoja's *Śālihotra.*[48]

Authorities quoted or referred to are: Bhoja (194, 201, 207, 212, 214), Garga (208), Gārgya (205, 212), Nakula (183), Pālakāpya (205), *Pārāśarasaṃhitā* (196), Śālihotra (197), Śaṅkha (212),[49] and Vātsya (195[50] and 207).[51]

BṚHASPATI: (1) *Aśvalakṣaṇa*;[52] (2) *Gajalakṣaṇa.*[53]

BUBBUHA is mentioned as an expert in *Hastiśāstra* in Śīlāṅka's *Caüppaṇṇamahāpurisacariya.*[54]

BUDDHISENA.[55]
DAYASIṂHA: *Aśvaśāstra.*[56]
DEVĪDATTA: *Aśvasaṃketacikitsākalikā.*[57]
DĪPAṄKARA: *Aśvavaidyaka.*[58]
DURLABHAGAṆA: *Siddhopadeśasaṃgraha.*[59]
DURLABHARĀJA:[60] (1) *Hastiparīkṣā*;[61] (2) *Turaṅgaprabandha.*[62]
GAJACIKITSĀ.[63]
GAJALAKṢAṆA.[64]
GAJAMŪTRĀÑJANAPRAYOGA.[65]
GAJANIRŪPAṆA.[66]
GAJAPĀLANACIKITSĀDI.[67]
GAJAPARĪKṢĀ.[68]
GAJAPRAŚAṂSĀ.[69]
GAJAŚĀNTI.[70]

The GAJAŚĀSTRA[71] is a treatise on elephants compiled by an unknown author; it is accompanied by a translation in Marāṭhī verse by Śarabhendra.[72]

The work consists of two parts, a gajaśāstra in 756 verses, arranged in ten chapters (prakaraṇa), and a gajaśāstrānubandha, an appendix, of 696 verses, divided into a large number of chapters.[73]

The *Gajaśāstra* opens with a maṅgalācaraṇa and a homage to Pālakāpya. Chapter

one (pālakāpyotpatti or pālakāpyacaritra; 106 verses) deals with stories about Pālakāpya.[74] Chapter two (diggajatatsaṃtānatadvaṃśīyagajalakṣaṇakathana; 64 verses) describes the origin of elephants in general, and that of the eight elephants of the quarters of the sky (diggaja) and their females in particular;[75] it also describes the characteristics of the descendants of the diggajas,[76] and adds some verses on the deities presiding over the different parts of an elephant's body. Chapter three (gajaśāpānugrahakathana; 40 verses) explains particular characteristics and behavioural patterns of elephants as resulting from curses by Dīrghatapas, Agni, Brahmā, Varuṇa and Bhṛgu;[77] it ends with a story telling how Brahmā bestowed his favour on the elephants. Chapter four (vanagajalakṣaṇanirūpaṇa; 27 verses) deals with the eight major and eight minor forest regions where wild elephants are found and the characteristics of elephants roaming there.[78] Chapter five (gajavayolakṣaṇa; 99 verses) describes the stages of life of an elephant and mentions its name in each of them, from the first to the twelfth month of the first year of life, from the second to the tenth year, and from the second to the twelfth decade;[79] two other series of the stages of life are quoted from other treatises;[80] elephants are, according to their age, divided into the categories uttama (superior), madhyama (intermediate) and adhama (inferior); the chapter ends with verses on the stages of life quoted from the *Vaiśampāyanīya*.[81] Chapter six (deśabhedabhinnagajalakṣaṇagajagrahaṇakathana; 36 verses) is concerned with the characteristics of elephants coming from different regions[82] and with the capturing of elephants. Chapter seven (bhadramandamṛgasaṃkīrṇagajalakṣaṇa; 74 verses) is about the bhadra, manda, mṛga, and mixed types of elephants.[83] Chapter eight (brahmādyaṃśavarṇachāyāgandhasattvasvaralakṣaṇa; 105 verses) treats classifications of elephants with regard to their aṃśa,[84] colour (varṇa),[85] sheen (chāyā),[86] smell (gandha),[87] character (sattva),[88] and trumpeting (svara);[89] the character types are described a second time on the basis of a work by Vyāsa.[90] Chapter nine (gajagatilakṣaṇādikathana; 52 verses) deals with a variety of subjects: the gait (gati) of elephants,[91] their āvartas, major defects (mahādoṣa),[92] and measurements (parimāṇa).[93] Chapter ten (bāhyāli; 151 verses) is about the ways of being seated (āsana) on an elephant,[94] driving elephants by means of the goad (sṛṇipraṇidhi),[95] the feet (pādapraṇidhi)[96] and words (vākpraṇidhi),[97] the pruning of the tusks (dantaccheda),[98] thrusts with tusks (dantāghāta),[99] the seven beauties of must (madaśobhā),[100] the seven stages of must,[101] the elephant-fight (bāhyāli) and -sport (gajakrīḍanaka), and the ways of pricking with the goad (sṛṇighāta).

The subjects dealt with in the gajaśāstrānubandha[102] are: the praise of the force of elephants, capturing wild elephants,[103] the determination of their age, the female elephant and its pregnancy,[104] the gandhahastin,[105] the care for and training of elephants after capturing them,[106] the mounting of elephants, must, the twelve regions (kṣetra) of an elephant's body,[107] the price of elephants, the pruning of their tusks,[108] the treatment of diseases, the care for young elephants, the types of elephants called bhadra, manda and mṛga, rules for the administration of medicines, the properties of articles of food and medicinal substances, the treatment of various disorders, clysters, errhines, the administration of medicines to elephants of various ages, and the construction of stables.[109]

Authorities and works quoted or referred to are:[110] Pālakāpya (7.36), *Vaiśampāyanīya* (5.86–99; 7.32–33; 9.25–32), *Vaiyyāsikya* (7.12–18, 25–31, 37–41; 10.42–44),[111] and Vyāsa (6.17; 8.3 and 85–95). The introductory verses state that the *Gajaśāstra* is based on the works by Pālakāpya and other sages.[112]

The author of the *Gajaśāstra* is unknown.

The work is probably later than Nīlakaṇṭha's *Mātaṅgalīlā*, which dates from the sixteenth century.[113]

GAJAVAIDYA.[114] This treatise is in the form of a dialogue between a king of Aṅga and Pālakāpya; it contains a great deal of mythological matter about elephants; it deals, among other things, with the methods of taming elephants and the treatment of their diseases.[115]

GAJĀVARTALAKṢAṆA.[116]
GAJĀYURVEDA.[117]

GAṆA, son of Durlabha: *Aśvāyurveda* or *Siddhayogasaṃgraha*.[118]

The *Aśvāyurveda* is a treatise on horses and their diseases; it is described as a saṃhitā of 6,000 verses, arranged in six sections (sthāna).

The names of these sections are: (1) lakṣaṇa, (2) rasavyākaraṇa, (3) kalpasūtra, (4) nidāna, (5) cikitsā, and (6) rahasya.[119] The author states that he took his material from the works of Śālihotra, Suśruta, Garga, and Dinapati.

Some names of diseases mentioned in the introductory part are:[120] āmaṇḍaka, aṇḍacāli, aṇḍākṣa, aṇḍaskanna, añjalīkārikā, aśrupāta, anuskanna,[121] bhārābhiṣaṇṇa, budbuda, daṃśapaittika, drauṇikā,[122] ekāṅgaroga, kāca, kaphāṇḍa, koṣṭharāji, krimikoṣṭha,[123] liṅgita,[124] muñja, muñjajāla, nirāṇuka, parisrāvi, paṭala, pittāṇḍa,[125] prakoṭaka, prakuñcaka, praskanna,[126] pratitūrṇa, prāvāraka, puṇḍarīkagraha, pūyāṇḍa, raktāṇḍa, rātrivāta, siṅghānaka,[127] svacchanda, ulūkapādasthānaruj,[128] unnīta, vālādaka, vātabalāsaka,[129] viduragraha, vidyutkṣipta, and yoktrābhitāpa.

The *Sārasaṃgraha* prescribes meat broth in the treatment of vāta diseases.[130]

Gaṇa's *Aśvāyurveda* is quoted in Mitramiśra's *Vīramitrodaya*.[131] The same work contains verses from Gaṇa's *Aśvacikitsita*.[132] The *Gaṇagrantha* by Gaṇa is quoted in Nakula's *Aśvaśāstra*.

A.C. Burnell assigned Gaṇa's work to the eleventh or twelfth century.[133]

The author mentions the Rattaula, a tenth-century family of Jain princes of central Telingana,[134] and refers to the Muslims, which shows that he may indeed have lived in the eleventh or twelfth century.

GARGA: *Aśvāyurveda*.[135]

GARUḌAPURĀṆA. One of the chapters of this work[136] deals with aśvāyurveda and gajāyurveda.[137] The verses on aśvāyurveda are based on Nakula's *Aśvacikitsita*.[138]

GHOṚĀ NIDĀN, a treatise on horses and the treatment of their diseases in Hindī.[139]

GODĀVARAMIŚRA: *Hariharacaturaṅga.*[140] This work is an elaborate treatise on politics and military science, with special reference to the techniques of warfare[141] and the army with its fourfold classification.

The work consists of about 3,000 verses, arranged in eight chapters (pariccheda), which are concerned with (1) elephants (gaja; 813 verses),[142] (2) chariots (ratha; 14 verses),[143] (3) horses (aśva; 837 verses),[144] (4) foot-soldiers (patti; 18 verses), (5) archery (dhanurvidyā; 399 verses),[145] (6) political science (nīti; 503 verses), (7) war (yuddha; 196 verses), and (8) playful exercises (krīḍā; 165 verses).

The chapter on elephants deals, after a series of introductory verses, with the following subjects:[146] deities associated with various parts of an elephant's body (17–19);[147] a eulogy of elephants (20–31); the mythical origin of the four classes (jāti) of elephants, called bhadra, manda, mṛga and miśra, in the four ages of the world called Kṛta-, Tretā-, Dvāpara-, and Kaliyuga (32–44);[148] the eight forest regions where elephants come from, the location of these forests, and the class of elephants to be found in each of these regions (45–61);[149] the characteristics of the classes of elephants, divided into sāttvika, rājasa and tāmasa types, according to the views of Bṛhaspati and Pālakāpya (62–164); the classification of the mixed types of elephants according to the views of Yājñavalkya, Rājaputra,[150] Agniveśa, Gautama and Kāśyapa (165–199); division of the mixed types into superior and inferior categories (200–210); the five ways of communicating with elephants (vedita; 211–220); the classification of elephants with respect to their habitat (221–236); the classification of elephants according to the four varṇas (brāhmaṇa, kṣatriya, vaiśya, śūdra; 237–250); the size of bhadra, manda and mṛga elephants (251–258); terms designating the parts of an elephant's body (pradeśa; 258–317); auspicious and inauspicious characteristics of the main parts, together with their meaning (śubhāśubhalakṣaṇa; 318–539); the relative importance of defects, compared to each other (540–557); types of irritability (krodha; 558–562); the gait of elephants (gati; 562–566), their velocity (vega; 567–573), perspiration (sveda; 574–576), trumpeting and other sounds (svara; 577–589), and exhalation (niśvāsa; 590–594); the colours of elephants (varṇa; 594–602), their sheen (chāyā; 603–611),[151] strength (bala; 612–624), and sattva (625–642); thrusts with the tusks (dantaghāta; 643–655);[152] mada and its physiology (656–669); the seven stages (avasthā) of mada, and the views of Bṛhaspati, Pālakāpya and Vyāsa on the subject (670–697); elephants in heat (698–711); elephants suitable for use in battle (sāṃgrāmika; 712–738);[153] elephants suitable for use in the consecration ritual of a king (abhiṣeka; 739–742);[154] elephants unsuitable for use in battle (743–795);[155] signs indicating the life span of elephants (795–813).[156]

The chapter on horses deals, after a series of introductory verses, with the following subjects: the mythical origin of horses, their division into brāhmaṇa, kṣatriya, vaiśya, śūdra, and mixed classes (varṇa), followed by the story relating how horses lost their wings (19–69);[157] the regions (āśraya) where horses are to be found (69–76); the fifty-four breeds (kula) of horses, named after these regions, together with their characteristics (77–211);[158] the characteristics of horses named after the four varṇas (212–248) and after mixed castes (249–267); the characters (sattva) of horses, divided into sāttvika, rājasa and tāmasa types, which correspond with the classes called bhadra, manda and mṛga (268–283);[159] the seven varieties of śuddha sattva, six varieties of rājasa sattva, and three varieties of tāmasa sattva (284–307);[160] anatomy (pradeśa; 308–356);[161] the measurements (māna) of various parts of a horse's body and their effects on the qualities (357–404);[162] the five varieties of beauty (śobhā; 405–425); the types of perspiration (sveda; 426–429);[163] auspicious and inauspicious characteristics of the various parts of the body (śubhāśubha; 429–604); the whirls of hair (āvarta; 604–607), their shapes (saṃsthāna; 608–613),[164] and their classification (614–619);[165] the description of these whirls and their auspicious or inauspicious meaning (620–722);[166] the colours (varṇa) of horses and their several varieties (723–732);[167] horses suitable for use in battle (733–749); defects in horses (750–762); the life span of horses[168] and the determination of their age by means of particular characteristics, especially of their teeth (762–812); the kṣetras in relation to the life span (813–826); signs indicating the life span (827–837).

Authorities and works referred to by Godāvara in the *Hariharacaturaṅga* are, apart from those already mentioned: *Acāracintāmaṇi* (6.501), *Advaitadarpaṇa* (6.502),[169] *Bhārata* (7.2),[170] Bṛhaspati (6.17), *Dhanurveda* (5.2),[171] *Īśānasaṃhitā* (5.2),[172] *Jayacintāmaṇi* (6.407),[173] Manu (6.17), *Nītikalpalatā* (6.500),[174] *Sārasaṃgraha* (5.3), Śrīkodaṇḍacaturbhuja (5.2),[175] *Tantracintāmaṇi* (5.383; 7.59–60),[176] Uśanas (6.17), and *Vīracintāmaṇi* (5.2).[177]

The author mentions his name, Godāvara, in the introductory verses (3 and 4) and in the last verse of his treatise.[178] Earlier works written by him are referred to; these works are: *Ācāracintāmaṇi,*[179] *Advaitadarpaṇa,*[180] *Nītikalpalatā,* and *Tantracintāmaṇi.*[181] He also composed a *Sāmudrikakāmadhenu,*[182] *Jayacintāmaṇi,*[183] and *Yogacintāmaṇi.*[184]

Godāvara was a son of Balabhadra,[185] who was rājaguru of the Gajapati kings Puruṣottama Deva (A.D. 1466–1497) and his successor, Pratāparudra Deva.[186] Balabhadra was a son of Gaṅgādhara Miśra, son of Jaleśvara Miśra, son of Mṛtyuñjaya Miśra of the Kautsagotra.[187]

The author was a minister (mantrivara) and preceptor (rājaguru) of Pratāparudradeva, who conferred on him the titles of kavipuṅgava and paṇḍitarāja; this king presented him with a white umbrella, called meghāḍambara,[188] decorated with four golden lions and a golden pitcher. Godāvara also bore the title of vājapeyayājin.[189]

Godāvara's patron, Pratāparudradeva, has been identified as the Gajapati king of this name who ruled in Orissa from A.D. 1497 to about 1540.[190] This king appointed him to the same office as his father in about A.D. 1510.[191]

GOPĀLADĀSA KĀYASTHA: *Karaṭikautuka.*[192]
GOTAMA: *Gavāyurveda.*[193]
GOVAIDYA.[194]
GOVAIDYAŚĀSTRA.[195]
GUṆĀKARA: *Karicikitsāsāroddhāra.*[196]

HAṂSADEVA: *Mṛgapakṣiśāstra.*[197] This is a zoological treatise in Prakrit, describing 225 mammals and birds in 1,700 verses. The species enumerated are arranged in thirty-six groups (varga) and six main categories (three rājasa and three tāmasa categories).

The author, a Jain from South India, is assigned to the thirteenth century. He wrote

his treatise on the request of Saudadeva, the Jain king of Jinapura, who decided to stop hunting and to acquire knowledge about wild animals and birds.[198] The work has been translated into English,[199] but the Prakrit text has not been edited.[200]

The Sanskrit version of the *Mṛgapakṣiśāstra*[201] consists of two parts, preceded each by an introductory pūrvapīṭhikā (of thirty-four verses), and arranged in twenty-one sections (śreṇī) on mammals, respectively thirty-six sections on birds. Each section is devoted to one particular mammal or bird or to particular groups of these animals.

The sections of part one describe:[202] (1) siṃhaguṇādi (the lion and its varieties): siṃha,[203] mṛgendra, pañcāsya, haryakṣa, kesarin, hari, siṃhī (35–106ab); (2) vyāghraguṇādi: śārdūla, dvīpin (the leopard),[204] vyāghra (the tiger)[205] (106cd–146); (3) tarakṣuguṇādi: tarakṣu (the hyena),[206] mṛgādana (the cheetah) (147–163ab);[207] (4) bhallūkaguṇādi: ṛkṣa,[208] acchabhalla,[209] bhallūka[210] (163cd–208); (5) gaṇḍakaguṇādi: gaṇḍaka,[211] khaḍga[212] (209–232ab); (6) gajaguṇādi (the elephant): dantin, dantāvala, hastin, dvirada, gaja, bhadragaja, mandagaja, mṛgagaja, saṃkīrṇagaja, mataṅgaja, padmin, ibha, stamberama, kariṇī (232cd–339); (7) aśvaguṇādi (the horse): turaṅga, aśva, ghoṭaka, arvant, vāha, gandharva, haya (340–402); (8) uṣṭraguṇādi: uṣṭra (the camel),[213] kramelaka, dāseraka, mahāṅga (493–433); (9) gardabhaguṇādi: gardabha, khara,[214] rāsabha (434–461); (10) varāhaguṇādi: varāha,[215] sūkara, kola, potrin, kiṭī, daṃṣṭrin, bhūdāra, śvāvidh,[216] ghṛṣṭi,[217] śalya[218] (462–501); (11) mahiṣaguṇādi: mahiṣa (the buffalo),[219] lūlāya, vāhadviṣ, kāsara, sairibha (502–543); (12) vṛṣabhaguṇādi: ukṣan (the bull), balīvarda, ṛṣabha, vṛṣa, mahokṣa, saurabheya (544–591); (13) dhenuguṇādi: gaus (the cow), dhenu (592–616); (14) ajaguṇādi: aja,[220] chāga,[221] meṣa,[222] vṛṣṇi,[223] eḍaka[224] (617–655ab); (15) hariṇaguṇādi: mṛga,[225] kuraṅga,[226] vātāyuhariṇa,[227] hariṇa,[228] vātamṛga,[229] kṛṣṇasāra,[230] ruru,[231] nyaṅku,[232] śambara,[233] raṅku,[234] rohitākṣa,[235] gokarṇa,[236] eṇa,[237] gandharva[238] (655cd–738ab); (16) camūruguṇādi: camūru,[239] kandalī, cīna, priyaka[240] (738cd–751); (17) kapiguṇādi: kapi,[241] plavaṅga,[242] śākhāmṛga,[243] valīmukha,[244] markaṭa,[245] vānara,[246] kīśa,[247] vanaukas[248] (752–804); (18) sṛgālaguṇādi: sṛgāla (the jackal),[249] mṛgadhūrtaka,[250] vañcaka,[251] kroṣṭar,[252] jambuka,[253] pheru[254] (805–837); (19) biḍālaguṇādi: biḍāla,[255] mārjāra,[256] otu,[257] ākhubhuj,[258] medaka[259] (838–874ab); (20) mūṣakaśāśaguṇādi: unduru,[260] ākhu,[261] mūṣaka,[262] cucundara,[263] śāśa[264] (874cd–910ab); (21) vṛkaguṇādi: vṛka (the wolf), koka,[265] īhāmṛga[266] (910cd–941ab); śvānaguṇādi: śvan, kukkura, śunaka, mṛgadaṃśaka,[267] sārameya, grāmyamṛga (941cd–973ab); upasaṃhāra (summary) (973cd–988).

The sections of part two describe: (22) haṃsādiguṇa: haṃsa,[268] cakrāṅga,[269] mānasavāsin,[270] rājahaṃsa,[271] mallikākṣa,[272] kādamba,[273] kalahaṃsa[274] (1–70); (23) cakravākaguṇādi: koka,[275] cakra,[276] rathāṅga[277] (71–100); (24) sārasabalākācakoraśarāricātakapakṣiguṇādi: puṣkara,[278] sārasa,[279] balākā,[280] sāraṅga,[281] cakora,[282] bṛhaccakora,[283] śarāru,[284] āṭī,[285] cātaka,[286] stokaka[287] (101–168ab); (25) garuḍaśyenaguṇādi: garuḍa,[288] vainateya,[289] pannagāri,[290] śyena,[291] śaśādana[292] (168cd–211ab); (26) gṛdhrabakaguṇādi: gṛdhra,[293] dākṣāyya,[294] ātāyin,[295] cilla,[296] krauñca,[297] baka,[298] kahva,[299] kuñca[300] (211cd–266ab); (27) kākaguṇādi:[301] kāka,[302] karaṭa,[303] balipuṣṭa,[304] sakṛtpraja,[305] dhvāṅkṣa,[306] ātmaghoṣa,[307] parabhṛta,[308] vāyasa,[309] cirañjīvin,[310] maukuli,[311] droṇakāka,[312] kākola[313] (266cd–335); (28) ulūkaghūkaguṇādi: ulūka,[314] vāyasārāti,[315] pecaka,[316] kauśika,[317] ghūka,[318] divābhīta,[319] niśāṭana[320] (336–386); (29) śukakokilaguṇādi: śuka,[321] kīra,[322] śārikā,[323] vanapriya,[324] parabhṛta,[325] kokila,[326] pika[327] (387–451); (30) mayūraguṇādi: mayūra (the peafowl),[328] barhin, nīlakaṇṭha, bhujaṅgabhuj, śikhāvala, kekin (452–499); (31) pārāvatacāṣaguṇādi: pārāvata,[329] kalarava,[330] kapota,[331] cāṣa,[332] kikīdivi[333] (500–544ab); (32) kukkuṭaguṇādi: kṛkavāku,[334] tāmracūḍa,[335] kukkuṭa,[336] caraṇāyudha[337] (544cd–571); (33) caṭakakareṭupakṣiguṇādi: caṭaka,[338] kalaviṅka,[339] karkareṭu,[340] kareṭu[341] (572–598); (34) lohapṛṣṭhadārvāghāṭapakṣiguṇādi: lohapṛṣṭha,[342] kuranṭaka,[343] dārvāghāṭa,[344] śatapattraka[345] (599–628); (35) khañjarīṭādi: khañjarīṭabharadvājakaliṅgapakṣiguṇādi: khañjarīṭa,[346] khañjana,[347] vyāghrāṭa,[348] bharadvāja,[349] kaliṅga,[350] bhṛṅga,[351] dhūmyāṭa[352] (629–672ab); (36) plavādipakṣiguṇa: plava,[353] tittiri,[354] kukkubha,[355] lāva,[356] koyaṣṭi,[357] hārīta[358] (672cd–700).

The treatise ends with a śāstraparisamāpti (701–717).

HASTYĀYURVEDA: anonymous.[359]
HEMASŪRI: *Aśvaśāstra.*[360]
HIMMATA BAHĀDURA: *Aśvaphalaprakāśa.*[361]
INDURĀJA.[362]
INDUSENA: *Sārasaṃgraha.*[363]

JAYADATTA: *Aśvavaidyaka,*[364] a treatise in 1,664 verses,[365] arranged in sixty-eight chapters (adhyāya).

A table of contents is found in chapter one (6–15). Chapters two to sixty-eight deal with: anatomy (pradeśa; 2);[366] good and bad characteristics of horses (3.1–28),[367] their whirls of hair (āvarta; 3.29–70),[368] the deities presiding over the various parts of a horse's body (3.70–72), the puṇḍras (3.73–81),[369] the puṣpas (3.82–92),[370] the trot (gati; 3.93–97), the colour of horses (3.98–124),[371] their neighing (svara, heṣita; 3.125–134), major defects (mahādoṣa) in horses (3.135–159),[372] portents (utpāta; 3.160–170),[373] the sheens (chāyā) of horses (3.171–179),[374] their characters (sattva; 3.180–181),[375] the measures of their limbs (pramāṇa; 3.182–194); their span of life (āyus; 4.1–16), the determination of their age by means of the development of their teeth and the meaning of various characteristics of their teeth (vayas; 4.17–34);[376] the regional division of their body (daśā, kṣetra; 5); the racial classification of horses (6); their classification according to the four varṇas, sattva and śakti (7.1–10), the field of pasture (raṅgabhūmi; 7.11–12), rules for riding (7.13–73); the treatment of infertility in mares (8); the characteristics of a pregnant mare (9); the care for a mare after dropping its foal (10.1–12), the purification of a mare's milk (10.12–17), the care for the newborn foal (10.18–23); rules for the dosage of medicines (11); materia medica and technical terms (nighaṇṭu; 12);[377] rules for feeding during the various seasons (13); the application of caustics (kṣāradāha; 14.1–6), cauterization (dāha; 14.7–20), the employment of surgical instruments (14.21–23); bloodletting (15); clysters (nirūha and anuvāsana; 16); errhines (nasya; 17);[378] sudation (sveda; 18); oleaginous drinks (sneha; 19); medicated oils (20); medicated ghees (21); the treatment of fatigue (śrāntopacāra; 22); signs foreboding death (ariṣṭa; 23–25); mṛgaroga (26);[379] the

causes and signs of excitement of the three doṣas (27); a list of diseases (28); diseases of mouth and throat (29);[380] diseases of the eyes (30);[381] diseases of the head (31); lameness (laṅgita; 32);[382] diseases of the ears (33); cough (34); hiccup and shortness of breath (35); wounds and ulcers (vraṇa; 36); siṅghānaka (37);[383] ghṛṇiroga (38);[384] diseases of the legs and hoofs (pādaroga; 39);[385] fever (40); indigestion (ajīrṇa; 41); diarrhoea (42); colic (śūla; 43);[386] udāvarta (44); praskanna (45);[387] worms (kṛmikoṣṭha) and śleṣmakoṣṭha (46); mūtragraha (47);[388] kuṣṭha (48);[389] swellings (śotha; 49); disorders of scrotum and testicles (muṣkaroga; 50);[390] aunītaroga (51);[391] udara (52);[392] haemorrhoids (53); utkarṇaka (54);[393] vātavyādhi (55);[394] unmāda (56);[395] disorders by grahas (57);[396] śoṣa (58);[397] vātabalāsaka (59);[398] vyāpad (60);[399] toxicology (61); convulsions (apasmāra; 62); ṣaṭpadībhakṣa (63);[400] signs indicating curability of a disease or its incurability (64); the constitutions (prakṛti; 65); some kalpas (66–68).[401]

The theoretical concepts found in the chapters on diseases and their treatment are the same as those in human āyurveda. Many diseases are divided into doṣic and āgantu types.[402] The types of treatment do not differ much from those in human āyurveda. Magical and religious elements occur in the chapter on grahas, as well as in that on the rules for riding a horse (7.37–43).[403]

Jayadatta often refers to Śālihotra as the foremost authority on the science of horses.[404]

Jayadatta is quoted by Bhoja,[405] Cakrapāṇidatta in his commentary on the *Carakasaṃhitā*, Mitramiśra in the *Vīramitrodaya*,[406] in the *Śārṅgadharapaddhati*, and by Ṭoḍara in his *Āyurvedasaukhya*.[407]

Jayadatta mentions his name and that of his father, Vijayadatta, in the introductory verses of his work (1.4). The colophons call him a great vassal (mahāsāmanta).

The only reliable dates are A.D. 1364, the year of completion of the Cambridge MS, and A.D. 1424, the year in which the India Office MS was written. In a number of articles on horses, P.K. Gode concluded that Jayadatta wrote his work between A.D. 700/800 and 1200/1300.[408] A. Rahman repeats that the treatise must have been composed between 800 and 1200.[409] The terminus ante quem is A.D. 1300 according to A.-M. Blondeau.[410] M. Vallauri places the author in the fourteenth or fifteenth century.[411]

JAYADEVA: *Śālihotra* or *Aśvavaidyaka*.[412]
JAYADRATHA: *Aśvaśāstra*.[413]

JINADĀSA[414] was the author of: (1) *Gajaprabandha*, also called *Gajaparīkṣā* and *Hastiparīkṣā*;[415] (2) *Turaṅgaprabandha*.[416] Both works, on elephants and horses respectively, were completed in A.D. 1158.

The same author wrote a *Svapnaśāstra*[417] on auspicious and inauspicious dreams, and began writing a *Sāmudrikatilaka*,[418] also called *Strīpuruṣalakṣaṇa*;[419] the latter treatise was completed by his son, Jagaddeva.[420]

Jinadāsa was a learned Jain householder, who lived in Gujarāt and held the office of minister during the reigns of the Caulukya kings Kumārapāla (A.D. 1143–1174)[421] and Bhīmadeva II (A.D. 1178–1239).[422]

KĀHNAPRABHUVAIDYA: *Aśvasāra*.[423]

KALHAṆA: *Aśvasārasamuccaya* or *Sārasamuccaya*.[424] Kilhaṇa's *Aśvasārasamuccaya* and *Sārasamuccaya* are quoted in Mitramiśra's *Vīramitrodaya*.[425]

KAUṬILYA: *Arthaśāstra*.[426]
KĪRTIVARMAN: *Govaidya*.[427]
KUMĀRA: *Gajacikitsā*.[428]

MAHĀNĀGA: *Kalpanāratnavyākhyāna*: a commentary on Śivarāmabhūpati's *Kalpanāratna*, a work on elephants.[429]

MAHEŚVARA: *Gajacikitsā*.[430]

MALLADEVA PAṆḌITA: *Sārasindhu*.[431] A *Vaidyakalpataru* may be by the same author.[432]

MĀNAPRIYAMATA.[433]
MATSYAPURĀṆA.[434]

MĀṬṬU VĀKAṬAMUM MĀṬṬU AṄKA AṬAIYĀḶAMUM, two Tamil treatises on the diseases of cattle and their treatment.[435]

MOTĪRĀMA AUDĪCYA: *Aśvagovṛṣalakṣaṇa*.[436]

NAKULA:[437] (1) *Aśvacikitsita*; (2) *Aśvaśāstra*.

(1) The *Aśvacikitsita*[438] consists of 423 verses, arranged in eighteen chapters (adhyāya).[439]

Chapter one is called praśnādhyāya; the introductory verses invoke the blessing of Śālihotra, son of Turaṅgaghoṣa, and mention that the abbreviated version of Śālihotra's treatise, as made by Nakula,[440] will be expounded; a short table of contents enumerates the subjects of the chapters of the work;[441] the remaining part (1.5–21) is devoted to the mythical story telling how horses lost their wings.[442]

The subjects of the other chapters are: the breeds (jāti) of horses,[443] and a number of behavioural characteristics considered to be auspicious or inauspicious (2), the colours of horses (varṇa; 3),[444] the whirls of hair (āvarta; 4),[445] the development of a horse's teeth (dantodbheda; 5), the measures of the limbs (sarvāvayavapramāṇa; 6), the speed of horses (vega; 7), rules for riding (ārohaṇa; 8), the utility of horses for different purposes and related subjects (vāhana; 9), pathophysiology (dhātuparīkṣā; 10),[446] the regimen during the seasons (ṛtucaryā), bloodletting (11),[447] errhines (nasya; 12), poultices (piṇḍa; 13), medicated ghees (ghṛta; 14), decoctions (kvātha; 15), toxicology (viṣa; 16), and the construction of stables (aśvaśālā, hayāgāra; 18).[448]

Diseases are not described in the *Aśvacikitsita*.

Some noticeable medicinal substances are: bhrāmarī (13.1), gaṇḍakī (13.12 and

21), pācā (15.10), śataghnī (13.2), and viṣakaṅkolī (16.12).

Śālihotra is frequently referred to as the foremost authority.[449]

(2) The *Aśvaśāstra*[450] is a treatise in verse, interspersed with prose, of about 650 units, divided into twenty-six chapters.

The subjects are: introduction,[451] the praise of horses, a hymn of praise (stotra) to Raivata,[452] the mythical story telling how horses lost their wings,[453] anatomy (pradeśādhyaya),[454] auspicious and inauspicious characteristics (aṅgalakṣaṇa),[455] the eight types of characteristics of horses (aśvalakṣaṇa),[456] the regional divisions (daśā, kṣetra) of their body, the whirls of hair (āvarta),[457] horses of mixed colours,[458] the puṇḍras,[459] the puṣpas,[460] the neighing (heṣita) of horses, their smell,[461] sheen,[462] gait (gati)[463] and character (sattva),[464] the main defects (mahādoṣa), the colour of the palate (tāluraṅga) in newborn colts, the various breeds (kula) of horses,[465] the determination of the age of horses by means of their teeth (vayojñāna),[466] the names and descriptions of horses with uniform or mixed colours,[467] horses suitable to particular riders and especially to the king,[468] the span of life (āyurlakṣaṇa), portents (utpāta) in connection with horses, the training of horses (vahanaśikṣā),[469] the trot (dhārā) of horses, and rules for riding (āroha).[470]

The edition of Nakula's *Aśvaśāstra* ends with extracts from Malladevapaṇḍita's *Sārasindhu*[471] and another *Sārasindhu*, also called *Śālihotravaiśampāyanīya*.[472]

Authorities referred to are Garga (2, 90), Śālihotra (2, 10, 19, 21, 65, 81, 91), and Suśruta (2).[473]

Nakula's *Aśvaśāstra* is quoted in Mitramiśra's *Vīramitrodaya*.[474]

Nakula is quoted or referred to in Basava's *Śivatattvaratnākara*, Bhoja's *Yuktikalpataru*,[475] Dhanvantari's *Saṃnipātakalikā*,[476] the *Haṃsarājanidāna*, Himmata Bahādura's *Aśvaphalaprakāśa*, the *Śārṅgadharapaddhati*,[477] *Subhāṣitaratnanidhi*,[478] *Sūktiratnahāra*,[479] and Ṭoḍara's *Āyurvedasaukhya*.[480]

Nothing is known about the author of the works attributed to Nakula. The *Mahābharata* mentions the expertise of Nakula, the fourth of the Pāṇḍava brothers, in the art of training and managing horses, taught to him by Droṇa.[481]

Medical works attributed to Nakula are: *Vaidyakasarvasva*,[482] *Cikitsāsaṃgraha*, and *Sārasaṃgraha*.[483] He is also credited with a rasayoga against snāyukaroga.[484]

Nakula's works are assigned to the period about A.D. 1000[485] or are said to be earlier than A.D. 1000.[486] The earliest MS of the *Aśvacikitsita* dates from A.D. 1864.[487] A MS of Nakula's *Śālihotra*[488] was completed in A.D. 1635/36. The earliest MS of the *Aśvaśāstra* is from A.D. 1617/18.[489]

NALARĀJA: *Aśvaparīkṣaṇa*.[490]

NĀRADA: (1) *Aśvaśānti*;[491] (2) *Gajaśānti*.[492]

(2) The *Gajaśānti* is divided into nine chapters (paṭala); it is written in the form of a conversation between Nārada as a teacher and Devala, also called Vāsava, as his pupil.

The chapter headings are, according to Umāpatyācāra's commentary: (1) gajasṛṣṭikramakathana (28 verses): the creation of the mythical elephants of the eight quarters of the sky[493] and how they lost their wings, (2) gajajātyaṃśanirūpaṇa (105 verses): the aṃśa typology (sixteen uttama, six madhyama and six adhama types), (3) gajaprayojanagajasthānanirūpaṇa (23 verses): uses of elephants, places where they are found, (4) gajabandhanasthānanirdeśakathana (53 verses): places where elephants may be captured, (5) gajabandhanaracanākramakathana (73 verses): methods of capturing (the stockade, vāribandha, vaśābandha = anugatabandha, and gartabandha, i.e., the pit method), (6) gajānayanakramahastipālalakṣaṇakramakathana (13 verses): the removal from the stockade (ānayana)[494] and the desired characteristics in elephant keepers, (7) gajaśālālakṣaṇakathana (27 verses): the construction of stables, (8) gajavayaḥkāryakramakathana (20 verses): the gestation period and a mother's care for her young during the first five months of its life, and (9) gajaśikṣākramanirūpaṇa (105 verses): the training of elephants, beginning when they are three years old, characteristics developing during the years of their growth, and the course of training.

Information on the author and his date is not available.

Umāpatyācāra mentions in the introductory verses of his commentary the following authorities on gajaśāstra: Agniveśya, Bhṛgu, Bṛhaspati,[495] Gajanātha, Gautama, Kolāhala,[496] Mṛgacarman, Nārada, Pālakāpya, Raibhya, Vālakhilya,[497] and Vyāsa.[498] Umāpatyācāra's commentary is very elaborate. Sources are not mentioned.

NĀRĀYAṆA: *Hayalīlāvatī*.[499]

NĀRĀYAṆA DĪKṢITA: *Gaja(saṃ)grahaṇaprakāra*, a work on the capture and training of wild elephants in 881 āryā verses, arranged in five chapters (āśvāsa).[500]

Chapter one (1–29) is in praise of elephants. Chapter two (30–373) describes ten methods of capturing elephants.[501] Chapter three (374–423) enumerates the regions where elephants are found. Chapter four (424–664) deals with the training of elephants.[502] Chapter five (665–881) is about the construction of stables, the feeding of and care for elephants, the periodical evaluation of their worth (714–753),[503] types of elephants according to their country of origin (kula) and other characteristics, auspicious and inauspicious characteristics, and the yearly show of the elephants of the king for the entertainment of the public (754–881).

The methods described for the capture of wild elephants are:[504] (1) vṛtibandha (capture in stockades; 30–53), (2) vṛkṣabandha (capture by enclosing within a smaller wooded area; 56–101),[505] (3) rajjubandha or śṛṅkhalābandha (capture by means of nooses or chains), also called ālavāla- and paṅkabandha (capture through the device of water-basins or sticky mud) (102–130), (4) vāribandha (capture by means of a moat filled with water; 131–173), (5) anugata- or kariṇībandha (capture of young elephants by using trained female elephants as decoys; 174–203),[506] (6) laghugarta- and (7) nimnāvaṭabandha (the pit method for capturing single elephants; 204–264),[507] (8) (pra)codanā- or preraṇābandha (capture by driving; 266–300),[508] (9) vana- or udyānabandha (the same as anugatabandha, but taking place in the city-park instead of in the woods; 301–331), (10) pāñcālikābandha (capture by using puppets of young elephants; 332–371).[509]

The editor of the text is of the opinion that methods three, four and eight form together the practice called khedda until recent times. Others regard the stockade method

as khedda.[510]

No information is available on the author and the date of composition.

NĪLAKAṆṬHA: *Mātaṅgalīlā.*[511]

This treatise on elephantology consists of 253 verses,[512] arranged in twelve chapters.

Chapter one (40 verses) deals with: the encounter of Romapāda, king of Aṅga,[513] with the sage Pālakāpya,[514] son of Sāmagāyana, who expounds to him the science of elephants; the mythical origin of elephants and their banishment to earth; the birth of Pālakāpya; the various natural types (jāti) of elephants,[515] the names for an elephant,[516] and related subjects. Chapter two (17 verses) is about favourable and chapter three (7 verses) about unfavourable marks.[517] Chapter four (6 verses) describes marks of longevity, and chapter five (23 verses) the stages of life.[518] Chapter six (13 verses) is concerned with the measurements of the various types of elephant[519] and with anatomy, chapter seven (3 verses) with their price, and chapter eight (25 verses) with their character types (sattva).[520] Chapter nine (23 verses) describes the state of excitement in elephants, called must (mada), and its seven stages.[521] Chapter ten (14 verses) is about the capture of elephants,[522] chapter eleven (51 verses) about their keeping and their daily and seasonal regimen.[523] Chapter twelve (31 verses) deals with elephant-drivers (mahouts)[524] and related subjects.

An authority referred to is Bṛhaspati (4.4).

Gaṇapati Śāstrī, who edited Nīlakaṇṭha's treatise, says that it is very well known in Kerala, and guesses on this ground that its author may have been a native of that region.[525]

The *Mātaṅgalīlā* is regarded as a work by Nīlakaṇṭhamūssatu,[526] who lived in the latter half of the sixteenth century and belonged to the Tirumaṅgalam house of Kerala; he studied under Brahmānanda Yati.[527]

PADMARASA: *Hayasārasamuccaya.*[528]

PĀLAKĀPYA: *Hastyāyurveda.*[529]

The *Hastyāyurveda* is a comprehensive treatise on elephant-medicine.[530] It is composed partly in verse, partly in prose,[531] and is divided into four sections: mahārogasthāna (eighteen chapters), kṣudrarogasthāna (seventy-two chapters), śalyasthāna (thirty-four chapters), and uttara- or parivārasthāna (thirty-six chapters).[532] It is written in the form of a dialogue between Romapāda, king of Aṅga,[533] who, surrounded by many sages, in his capital Campā,[534] is instructed in the science of hastyāyurveda by the greatest authority on this subject, Pālakāpya. The structure of the work resembles in some respects that of the *Caraka-* and *Suśrutasaṃhitā*[535] and is also reminiscent of Bharata's *Nāṭyaśāstra.*[536] Each chapter opens with particular questions by Romapāda which are answered by Pālakāpya. The way in which the contents of the *Hastyāyurveda* are arranged differs from that of the classical saṃhitās. By far the larger part of the general subjects is not dealt with in the first sthāna, but in the third and fourth ones. The basic medical concepts are the same as those in human

āyurveda, but much less space is devoted to them. A nidāna-, śārīra-, and kalpasthāna are absent. The nidāna and treatment of a disease are in all cases found in one and the same chapter. The properties of medicinal substances are not enumerated, although those of articles of food are elaborately described.

Most of the subjects of the anonymous *Gajaśāstra* are either absent or much more concisely discussed. The medical science, applied to elephants and their diseases, is the major concern of the *Hastyāyurveda.*[537]

Section one is called mahārogasthāna, which conveys the impression that the diseases it describes were considered to be the major diseases of elephants.[538]

Chapter one (vanānucarita) deals with stories about Pālakāpya, his encounter with Romapāda, and the exposition of the hastyāyurveda by the former to the latter. Chapter two (annasamācāra) is about the care for and feeding of elephants. Chapter three (sātmyāsātmyaviniścaya) is concerned with the fifteen causes of death in wild elephants, and with their natural food. Chapter four (śāstrasaṃgraha) gives a table of contents of the treatise, chapter by chapter. Chapter five (gajalakṣaṇavinyāsa) contains a eulogy of elephants and verses on the care for them. Chapter six (śiṣyopanayana) is about the initiation of pupils.[539] Chapter seven (rogavibhakti) contains interesting classifications of the diseases of elephants. Chapter eight (jvarotpatti) tells mythical stories about the origin of fever. Chapters nine to eighteen deal with a series of diseases and their treatment: jvara (fever; 9),[540] skanda (10),[541] pāṇḍuroga (11),[542] ānāha (12),[543] mūrchā (13),[544] śiroroga (diseases of the head; 14),[545] pādaroga (diseases of the legs; 15),[546] vyāpad (disorders caused by the wrong employment of particular articles of food or medicinal preparations; 16),[547] śopha (17),[548] and akṣiroga (eye diseases; 18).[549]

Section two is called kṣudrarogasthāna.[550] Its subjects are: vamathu (vomiting; 1), atisāra (2),[551] madanajagdhaka (3),[552] tṛṇaśoṣin (4),[553] karmātinīta (5),[554] viṣa (poisoning; 6–8),[555] digdhaviddha (disorders in elephants pierced by poisoned arrows; 9), sarpadaṣṭa (snake-bites; 10), sphoṭikā (boils and bites by spiders; 11), apavādabaddha (12),[556] pūrvābaddha (13),[557] visarpa (14),[558] hṛdayasphālana (15),[559] vālakṣāṇī (16),[560] meḍhrakṣāṇī (17),[561] hastonmathita (18),[562] udāvarta (19), utkarṇaka (20),[563] vātagati (21),[564] manyāgraha (22),[565] madakṣīṇa (23),[566] kṛśa (24),[567] balakṣīṇa (25),[568] śleṣmābhiṣanna (26),[569] vanasātmyānulomika (27),[570] talakāśī (28–29),[571] galagraha (30),[572] tṛṣṇā (thirst) and siddhārthaka (31),[573] bhūtagraha (32),[574] unmāda (insanity; 33), apasmāra (epilepsy; 34), vātakuṇḍalikā (35),[575] bhāroṇmathita (36),[576] lupta (37),[577] pattrakṛmi (38),[578] uraḥkṣata (39),[579] śoṇitāṇḍa (40),[580] yavagaṇḍaśiras (41),[581] carmakīla (warts; 42), vṛddha or jarā (old age; 43), avasāda (lassitude; 44), jaṭharaka (45),[582] bālacikitsā (diseases of young elephants, separated from their parents; 46), rātrikṣipta (47),[583] mūtrasaṅga (48),[584] sūtikāvāta (49),[585] dantaroga (diseases of the teeth; 50), cetobhraṃśa (51),[586] śūla (52),[587] śārada (53),[588] madhumakṣikādaṣṭa (stings by honeybees; 54), chavīdoṣa (55),[589] mṛttikābhakṣaṇa (56),[590] grahaṇīdoṣa (chronic diarrhoea; 57), āma (58),[591] kṛmikoṣṭha (infestation of the intestinal tract by worms; 59),[592] kṣaya (60),[593] mada (61),[594] karṇavālakṛmi (parasites living in the ears and on the hairs of the tail; 62), karṇaroga (diseases of the ears; 63), abhaktacchanda (want of appetite; 64), bhaktagrāsoparodha (65),[595] droṇīkaśopha (66),[596] atiyāta (67),[597] gulma (swelling of the abdominal viscera; 68),

hṛdroga (diseases of the heart; 69), and gātraroga (70–72).[598]

Section three, called śalyasthāna, is mainly concerned with disorders requiring surgical treatment and with surgical procedures; it also deals with embryology and anatomy.[599]

Its subjects are: vraṇa (sores and ulcers; 1), sadyaḥkṣata (flesh wounds; 2–3),[600] ṣaḍatyaya (4),[601] vraṇopakrama (5),[602] dvādaśopakrama (6),[603] garbhasaṃbhava (embryology; 7), garbhāvakrānti (8),[604] śarīravicaya (anatomy; 9), śastrāgnipraṇidhi (sharp instruments and cautery; 10),[605] yantravidhi (blunt instruments; 11), śalyoddharaṇa (12),[606] vidradhi (abscesses; 13), vraṇa (the treatment of wounds and sores; 14),[607] nāḍīvraṇa (fistulas and sinuses; 15), śirāvyūhavyadha (16),[608] dantanāḍī (dental sinuses; 17), adhikadanta (supernumerary teeth; 18), śirāccheda (19),[609] marmapramāṇa (20),[610] eraṇḍaka (21),[611] marmaviddha (injuries to vital points; 22–23), doṣavicaya (24),[612] agnidagdha (burns; 25), lūtā (26),[613] viṣakīṭa (bites by poisonous insects; 27), vyāladaṣṭa (snake-bites; 28), pradeśajñāna (29),[614] śastravidhi (30),[615] kṣāra (caustics; 31), bhagna (fractures; 32), mūḍhagarbha (malpositions of the foetus; 33) and dantoddharaṇa (34).[616]

Section four, the uttarasthāna, is about the following subjects: snehapāna (the administration of oleaginous substances; 1–2), annapānavidhi (foods and drinks; 3),[617] snehavidhi (the procedures for the administration of oleaginous substances; 4), basti (enemas; 5), śālāvidhāna (the construction of stables; 6),[618] nasya (errhines; 7), yavasa (8),[619] ariṣṭa (signs foreboding death; 9), dantakalpanā (10),[620] rasavīryavipāka (11), ikṣudāna (feeding with sugarcane; 12), nasya (errhines; 13), añjana (collyria; 14), ṛtucaryā (the regimen during the seasons; 15), kāryākāryavidhi (16),[621] anupāna (postprandial drinks; 17), sauvīrakapānavidhi (18),[622] surāpratipānavidhi (19),[623] gugguluvidhi (the administration of guggulu; 20), kṣīradāna (the administration of different kinds of milk; 21), śrīgajasaṃbhava (22),[624] kimarthakī (23),[625] paricāraka (24),[626] trividhi (25),[627] pathyāpathyavicāra (wholesome and unwholesome substances; 26), karīṣamūtra (27),[628] laśunakalpa (28),[629] lavaṇayoga (29),[630] pāṃśudāna (30),[631] madāvasthā (31),[632] nāgatantukagrāha (32),[633] jalahastin (33),[634] jalaukā (leeches; 34),[635] upasarga (35),[636] and gajaśānti (36).[637]

The first chapter of the treatise mentions a large number of sages who assemble at the court of Romapāda in order to be instructed in the science of hastyāyurveda. Their names are: Acūḍa, Agastya, Agniveśya, Āṅgirasa, Arimeda, Atri, prince Bāṣkali, Bhāradvāja, Bhārgava, Bhṛgu, Bṛhaspati, Cyavana, Dīrgha,[638] Gārgya, Gautama,[639] Hiraṇya,[640] Jamadagni, Kāṅkāyana, Kāpya, Kāśyapa, Kratu,[641] Kumuda, Māṇḍavya, Marīci, Mataṅga,[642] Mṛgaśarman,[643] Nārada,[644] Parāśara,[645] Parikara, Pulaha,[646] Pulastya, Raibhya,[647] Sārasvata,[648] Saubala,[649] Suparvaṇa, Triśaṅku,[650] Ūrmimālin, Vaśiṣṭha, Viśvāmitra, and Yājñavalkya.[651]

Some of these and their opinions are referred to in the *Hastyāyurveda*: Agniveśa (I.3.3 and IV.4),[652] Arimeda (III.8.301), Bāṣkali (III.8),[653] Bharadvāja (IV.4), Gārgya (IV.4), Gautama (I.3.3; III.8.298; IV.4), Kāśyapa (II.8 and 11; III.8.28, 279, 295–296),[654] rājaputra (= Bāṣkali; III.8.299),[655] Vaśiṣṭha (II.11), and Yājñavalkya (III.8.273).[656] The following sages are occasionally mentioned: Bhṛgu,[657] Kāśyapa, Marīci,[658] and Uddāla;[659] Aṅgiras, Cyavana, Dīrgha, Jamadagni, Kratu, Paricara, Pulaha,

Pulastya, and Vasiṣṭha.[660] Caraka is referred to once (II.58).

Pālakāpya is quoted or referred to in the *Agnipurāṇa*, Anantakumāra's *Yogaratnasamuccaya*, Ballālasena's *Adbhutasāgara*,[661] Basava's *Śivatattvaratnākara*, Bhoja's *Yuktikalpataru*, the anonymous *Gajaśāstra* and *Gajavaidya*, Godāvara's *Hariharacaturaṅga*,[662] Hemādri's *Caturvargacintāmaṇi*,[663] Hemādri's *Lakṣaṇaprakāśa*,[664] Jayaratna's *Jvaraparājaya*, Kṣīrasvāmin's commentary on the *Amarakoṣa*,[665] Mallinātha's commentary on Kālidāsa's *Raghuvaṃśa*,[666] Mitramiśra's *Vīramitrodaya*,[667] Narahari's *Vāgbhaṭamaṇḍana*,[668] Nīlakaṇṭha's *Mātaṅgalīlā*, Niścalakara's commentary on the *Cakradatta*,[669] Rāghavabhaṭṭa's commentary on Kālidāsa's *Abhijñānaśākuntala*,[670] the *Śārṅgadharapaddhati*, Śivadāsasena's commentary on the *Cakradatta*, Śrīdāsapaṇḍita's commentary on the *Aṣṭāṅgahṛdayasaṃhitā*,[671] Ṭoḍara's *Āyurvedasaukhya*, Ugrāditya's *Kalyāṇakāraka*,[672] Umāpati's commentary on Nārada's *Gajaśikṣā*, and Vijayarakṣita's part of the *Madhukośa* on the *Mādhavanidāna*.

Pālakāpya's work is quoted as *Hastivaidyaka* in Cakrapāṇidatta's *Āyurvedadīpikā*, and as *Gajavaidyaka* in Vācaspati's commentary on the *Mādhavanidāna*.

A Hindī commentary on the *Hastyāyurveda*, called *Amarasubodhinī*, was written by Rākhecā in the second half of the seventeenth century.[673] A Kannaḍa commentary by Vīrabhadrarāja (about A.D. 1600) is also known.[674]

Six types of burns (dagdha) are distinguished: agni-, arka-, vidyud-, saṃtāpa-, kṣāra-, and viṣadagdha (III.2). Wounds (sadyaḥkṣata) are of several types: chinna, vicchinna, nirviddha, sāvanaṣṭa, vidārita, uttuṇḍita, atividdha, viddha, avamṛṣṭa, dagdha, and dūṣīviṣakṣata (III.3.4–5ab).[675] Seven kinds of surgical intervention are listed: chedya, bhedya, lekhya, visrāvaṇa, vidāraṇa, eṣaṇa, and sīvana (III.30).[676] The names of surgical instruments are partly identical with those of the *Suśrutasaṃhitā*.[677] Thirteen types of fracture are distinguished: niṣpiṣṭa, viśliṣṭa, prakṣipta, tiryakkṣipta, atikṣipta, muktakāṇḍa, sthāpita, jarjarībhūta, cūrṇita, mathita, cyuta, majjānujātamathita, and bhagna (III.32).[678] The varieties of leeches are related to those of human medicine.[679] The number of marmans is one hundred and seven, as in human āyurveda.

A discussion on the problem which part of the embryo develops first is also found in Pālakāpya's work, without, however, mentioning names of authorities who held a particular opinion on this subject.[680] The stages of embryonic development are described.[681]

The six tastes are classified into three rasas (madhura, kaṭuka, amla) and three uparasas (tikta, kaṣāya, lavaṇa),[682] a feature not found in human āyurveda. The seven tissues (dhātu) are connected with seven sages: rasa with Ātreya, rakta with Vaśiṣṭha, māṃsa with Kāśyapa, medas with Gautama, asthi with Bharadvāja, majjā with Kauśika, and śukra with Jamadagni.[683]

The eight aṅgas of āyurveda are not referred to. The arrangement of the diseases is peculiar to this treatise. They are classified, in the same way as human diseases in the *Suśrutasaṃhitā*,[684] into three broad categories: ādhyātmika, ādhibhautika and ādhidaivika (I.7). The *Hastyāyurveda* enumerates seventy-six diseases by vāta (I.7.7cd–17ab), twenty-seven by pitta (7.17cd–21), thirty-two by kapha (7.22–27ab), fifteen by rakta (7.27cd–30ab), twenty-two by saṃnipāta (7.30cd–33), fourteen by vāta and pitta

(7.34–36), sixteen by vāta and kapha (7.37–40a), seven by vāta and rakta (7.40b–41c), three by kapha and rakta (7.41d–42ab), three by pitta and kapha (7.42cd–43a), three by vāta, rakta and pitta (7.43b–d), three by kapha, rakta and vāta (7.44), one by pitta, rakta and kapha (7.45ab),[685] six by bhūtas and vāta (7.45cd–46), and five which are of mental origin (7.47–48ab). These 233 diseases[686] form the ādhyātmika category. The category called āgantuka[687] comprises eighty-three diseases (7.49–61ab), which makes the total number into 316.[688]

The theoretical concepts regarding pathogenesis are mostly the same as in human āyurveda, but an exception forms the recognition of blood (rakta, śoṇita) as having the same or almost the same status as the three doṣas;[689] consequently, the term saṃnipāta, in human āyurveda applied to the group of three doṣas, is repeatedly used to designate vāta, pitta, kapha and blood.[690] Vāta is very important as a cause of diseases, and the various kinds of vāta are often referred to.[691] The nosological classifications sometimes agree, sometimes disagree with those of human āyurveda in the descriptions of diseases common to human beings and elephants. The disease called gulma is, for example, of five types in human beings and elephants,[692] but loss of appetite is of one type in elephants,[693] whereas human beings are afflicted by five varieties of this disorder.

Magical and religious elements, including mantras, are conspicuously present in the verses on treatment.[694] Allusions to mythology are also found.[695]

The therapeutical procedures are largely the same as those of human āyurveda. The same applies to the materia medica. The chapter on yavasa (fodder grasses; IV.8) mentions the names of many grasses that are only found in this treatise.

Pālakāpya is a legendary figure, described as the son of the sage Sāmagāyana and a female elephant which drank the sage's urine, mixed with his semen.[696] The descriptions of Pālakāpya resemble those of Ātreya Punarvasu in the *Carakasaṃhitā*.[697] Pālakāpya is sometimes regarded as an incarnation of Dhanvantari.[698] His hermitage was situated on the banks of the river Lauhitya.[699]

The date of the *Hastyāyurveda* cannot be determined with any certainty. The quotations by Kṣīrasvāmin prove that some version of the work is earlier than the first half of the twelfth century. The terminus ante quem would be shifted to the end of the eighth century if the Gaṅga king Śivamāra, author of a *Gajāṣṭaka*, was acquainted with the whole treatise.[700] The *Hastyāyurveda* is later than the *Caraka-* and *Suśrutasaṃhitā*, because its structure betrays the influence of these classics.[701]

PAŚUVAIDYA.[702]
PĪLUKĀCĀRYA.[703]
RAMACANDRA KAVI: *Aśvaśāstra*.[704]

RUDRADEVA: *Śyainikaśāstra*.[705]

The seven chapters (pariccheda) of this work in verse deal with the following subjects:[706] the defence of vices (vyasana) (1: karmānuṣajjana; 30 verses); the eighteen vices (2: vyasanaheyāheyatā; 33 verses);[707] various kinds of hunting (mṛgayā), the last of which is hawking (śyenapātā) (3: mṛgayāvivecana; 79 verses);[708] various kinds of hawks, their training and their capacity for hawking (4: śyenavivecana; 62 verses); the feeding and tending of hawks, and the treatment of their diseases (5: cikitsā; 79 verses);[709] various kinds of sport with hawks (6: śyenapātetikartavyatā; 62 verses); after-enjoyments (7: mṛgayānantaretikartavyatā; 29 verses).[710]

Some of the birds mentioned in the treatise are:[711] auraṅgaṇa (4.42), balākākṣa (4. 34),[712] bharadvāja (6.41), cakrāṅga (4.35),[713] cakravāka (4.35),[714] caraka (4.20; 5.2; 6. 39),[715] ceṭa (4.32; 5.7),[716] cūlāṅka (5.5), cūlikāṅka (4.48), dātyūha (6.37),[717] dhāvana (4.46), dhūti (4.32; 7.12),[718] dhūtikā (5.7; 6.29), haṃsavāja (4.37),[719] jūra (4.32),[720] kālaka(vāja) (4.36),[721] kalaviṅka (4.16; 5.24, 49),[722] kaṅka (4.36; 6.37),[723] kapota (4. 16),[724] kecuka (6.40), krauñca (6.35; 7.12), kuhī (4.3, 20, 54; 5.2; 6.24, 25, 35, 59; 7. 12),[725] lagara (4.20),[726] lāva (6.32; 7.12), mahārāvaṇa(vāja) (4.39–40),[727] māṇika (4. 48), pakṣakākalikā (5.4),[728] pakṣakalikā (4.21), pratiṣṭhāna (4.46), sārasa (6.35), śaśāda (4.20; 5.3; 6.26),[729] sicāna (4.32, 49; 5.6),[730] śikāra (4.45; 6.57, 58), tittiri (6.58),[731] ṭonā (5.7; 6.29, 40),[732] tṛṇabarhi (7.12),[733] ṭunā (4.32),[734] turumutī (4.21; 5.7),[735] vaharī (4.20; 5.2; 6.24, 37),[736] vāja (4.29, 31, 32, 33; 5.24; 6.44, 48),[737] varaja (6.44), vartikā (5.48; 6.29),[738] vāsa (4.3, 32; 5.5; 6.24, 25, 55),[739] and vesara (4.32).[740]

Many words of Turkish or Persian origin are used in this work, which has been influenced by Muslim treatises on the subject.[741]

The author, Rudra(candra)deva or Candradeva, was a king of Kūrmācala, i.e., Kumaon. He also wrote a work on dharmaśāstra, called *Traivarṇikadharmanirṇaya*.[742]

Since Rudradeva quotes Kullūkabhaṭṭa's commentary on the *Manusmṛti*, he must have lived after the middle of the fifteenth century.[743]

ŚĀLIBHADRA: *Aśvaśāstra*.[744]

ŚĀLIHOTRA: (1) *Aśvahṛdaya*;[745] (2) *Aśvalakṣaṇaśāstra*;[746] (3) *Aśvapraśaṃsā*;[747] (4) *Aśvaśāntividhāna*;[748] (5) *Aśvavaidya*;[749] (6) *Aśvāyurveda*;[750] (7) *Raivatastotra*;[751] (8) *Śālihotra*;[752] (9) *Śālihotronnaya*;[753] (10) *Siddhayogasaṃgraha*.[754]

The *Aśvalakṣaṇaśāstra*, *Aśvavaidya*, *Aśvāyurveda*, and *Śālihotra* may well represent the same work or different versions of it.

The title *Śālihotra* is also given to treatises on the same subject by other authors,[755] since Śālihotra's work was regarded as the basic one concerning aśvaśāstra.[756]

Authors and works quoting Śālihotra or referring to him are: *Agnipurāṇa*, Anantakumāra's *Yogaratnasamuccaya*, the anonymous commentator on Somadeva's *Nītivākyāmṛta*,[757] Ballālasena's *Adbhutasāgara*,[758] Basava's *Śivatattvaratnākara*,[759] Bhānuji Dīkṣita's commentary on the *Amarakoṣa*, *Bheṣajakalpa*, *Bheṣajakalpasārasaṃgraha*, Bhoja's *Yuktikalpataru*, Candraṭa's *Yogaratnasamuccaya*, Dāmodara's *Ārogyacintāmaṇi*, Dīpaṅkara's *Aśvavaidyaka*, Durlabhagaṇa's *Siddhopadeśasaṃgraha*, *Garuḍapurāṇa*, Godāvara's *Hariharacaturaṅga*, Hemādri,[760] Hemādri,[761] Indu,[762] Indusena's *Sārasaṃgraha*, Jayadatta's *Aśvavaidyaka*, Kalhaṇa's *Sārasamuccaya*, *Mahābhārata*,[763] *Matsyapurāṇa*,[764] Mitramiśra's *Vīramitrodaya*,[765] Nakula's *Aśvacikitsita* and *Aśvaśāstra*, Narahari's *Vāgbhaṭamaṇḍana*,[766] Nārāyaṇa Vidyāvinoda's commentary on the *Amarakoṣa*,[767] Niścalakara's commentary on the *Cakradatta*,[768] *Pañcatantra*,[769] *Paraśurāmapratāpa*, Rāyamukuṭa's commentary on the *Amarakoṣa*, *Śārṅga-*

dharapaddhati, Sarvānanda's commentary on the *Amarakoṣa*,[770] Śivadāsasena's commentaries on the *Carakasaṃhitā* and the *Cakradatta*, Sukhānanda's *Aśvaśāstra*, Ṭoḍara's *Āyurvedasaukhya*, Vāhaḍa's *Aśvāyurveda*, Vallabhagaṇi's commentary on Hemacandra's *Abhidhānacintāmaṇi*, and an anonymous *Yogaśatābhidhāna*. He is quoted as an authority on cows by Bhaṭṭotpala in his commentary on Varāhamihira's *Bṛhatsaṃhitā* (chapter 60).

The formula of Nārāyaṇa's siddhārthakataila, found in the Bower MS (III.36b–53), is said to derive from Śālihotra.[771]

Śālihotra's treatise was translated into Tibetan by Śrībhadra and Buddhaśrīśānti, assisted by the famous Rin-chen bzaṅ-po,[772] as well as into Persian,[773] Arabic,[774] and Hindī.[775] One of the Persian translations, the *Tarjamah-i-Sālotar-i-asbān*, was translated into English by *J. Earles (1788).[776]

Commentaries on Śālihotra's works were written by Ananta Bhaṭṭa[777] and Rāmanātha Vaidya;[778] an anonymous commentary is also recorded.[779]

The place of residence of Śālihotra is said to have been Śālātura,[780] Śāliśūrpa,[781] or Śrāvastī.[782] He expounded the veterinary science in the forest of Campaka at the foot of the Himālaya.[783]

Śālihotra's works[784] cannot be dated accurately, but they may be from or somewhat earlier than the tenth century.[785] The Tibetan translation was made between A.D. 992 and 1042.[786]

ŚĀLIHOTRARAHASYA.[787]
ŚĀLIHOTRASĀRA.[788]
ŚĀLIHOTRASĀRASAṂGRAHA.[789]
ŚĀLIHOTRAŚĀSTRA.[790]
ŚĀLIHOTRONNAYA.[791]
ŚĀRṄGADHARA: *Śārṅgadharapaddhati*.[792]

SĀYAṆA: *Subhāṣitasudhānidhi*. This anthology contains chapters called Gajapaddhati and Aśvapaddhati.[793]

ŚIVARĀMABHŪPATI: *Kalpanāratna*.[794]
SOMADEVA: *Yaśastilaka*.[795]

SOMEŚVARA: *Mānasollāsa*.[796] This work contains material of zoological interest: 4.997–1170ab (on cocks: tāmracūḍa- or kukkuṭavinoda), 1170cd–1328 (on lāvakas, i.e., a sort of quails: lāvakayuddha),[797] 1239–1259 (on rams: meṣavinoda), 1260–1276 (on buffaloes: mahiṣavinoda), 1277–1297 (on pigeons: pārāvatavinoda), 1298–1328 (on dogs: sārameyavinoda),[798] 1329–1380 (on falcons and falconry: śyenavinoda),[799] 1381–1433ab (on fishes and angling: matsyavinoda),[800] and 1433cd–1725 (on hunting: mṛgayāvinoda).

The section on hunting[801] has been reproduced, with numerous proposals for corrections of the text, and together with a German paraphrase, by R. Krottenthaler.[802]

The introductory verses describe types of country unsuitable and suitable to hunting. The remaining part is devoted to a long series of types of hunting, such as, for example, hunting at watering places (pānīyajā mṛgayā), in fields (kṣetrajā), by means of decoys (dīpamṛgajā), snares (pāśajā), nets (jālajā), cheetahs (vyāghramokṣaṇasambhūtā), etc.

Some of the animals mentioned are: hariṇa, kṛṣṇasāra,[803] kuraṅga, ruru,[804] śambara, sāraṅga, and sūkara.

The veterinary science is also dealt with: 2.172–331 is concerned with elephants, 2.573–619 with horses, and 2.620–677 with elephants again; 4.205–661ab (gajavāhyāvalīvinoda) and 4.661cd–827 (vāji- or turagavāhyāvalīvinoda) are also about elephants and horses.

Someśvara distinguishes sixty-five breeds of horses, of which thirty-nine are mentioned by name; the names of the remaining twenty-six types are not given because they are said to have become unknown in the Kaliyuga (4.669–675).[805] The āvartas (whirls of hair) are the same as in Nakula's *Aśvaśāstra* (4.676–678), apart from three special ones.[806] Horses of more than one colour are said to be of sixteen types (4.684–701).[807] The character types (sattva) of horses differ somewhat from those in the works of Jayadatta and Nakula (4.702–703).[808] Three varieties of sheen (chāyā) are distinguished (4.704–705).[809] Someśvara describes the line of treatment for some diseases which are peculiar to horses: subhikṣāvarta (2.581),[810] siṃhāṇaka (2.579),[811] rasājīrṇa (2.603),[812] and cālī (2.608–609).[813]

Elephants of good qualities are said to be found in eight forests, named and described by Someśvara (2.172–179).[814] The typology of elephants is more elaborate than in other treatises (4.230–235).[815] Their characteristics are described on the basis of their anūka (size), aṃśaka, sattva, and kula (2.221). Seven types are distinguished as to size (2.222–225), nine with regard to aṃśaka (2.234–262),[816] three chief (sāttvika, rājasa, tāmasa) and nine secondary types with regard to sattva (2.263–272), and eight types with regard to kula or anvaya (2.274–281).[817] The various means of capturing (bandha) wild elephants (2.180–220)[818] and their training (śikṣā; 2.282–331) are dealt with by Someśvara. Causes of diseases in elephants are bandhana (capturing), tāḍana (beating), vyādhi, vanasaukhyavicintana (thinking about the pleasures of the forest), asātmya, ajīrṇa, āyāsa (strain), and jāgaraṇa (waking) (2.628–629). Someśvara enumerates the names of fever in various living beings and inanimate substances (2.639–643).

The nosology resembles that of human āyurveda in being dominated by the tridoṣa doctrine.

A syndrome peculiar to elephants is called mṛddohada (craving after mud; 2.659).[819]

ŚRĪPURUṢA: *Gajaśāstra*.[820]
SUHOTRA: *Hayadīpa*.[821]
SUKHĀNANDA: *Aśvaśāstra*.[822]
ŚUKRANĪTI.[823]
ŚYENACIKITSĀ.[824]
TURAṄGAPRABANDHA.[825]

TURAṄGARAṄGA.[826]

VAHAḌA, VĀHAḌA, VAHĀḌA, VĀHĀḌA:[827] *Aśvacikitsāsāra*,[828] *Aśvāyurveda*,[829] *Aśvāyurvedasārasaṃgraha*,[830] or *Śālihotra*.[831]

This work[832] consists of four sections (adhikāra): samunnati (chapters 1–37), on the nature of horses and their characteristics; rahasya (chapters 38–72), on the care for and the feeding of horses, and on general therapeutic measures; rasāyana (chapters 73–86), on various rasāyanas; cikitsā (chapters 87–277), on the treatment of diseases.

Section one deals with anatomy, the āvartas, puṇḍras and puṣpas, the colours of horses, their age, smell, sattva, chāyā, etc. Section two describes therapeutic measures such as sneha, sveda, abhyaṅga, dhūmapāna, nirūha, śirāvedha (bloodletting, etc.) Section three consists of a collection of kalpas. Section four enumerates more than 180 diseases, many of which cannot easily be identified.

Some noteworthy names of diseases are:[833] rukṣāvarja (92), śṛṅgavarta (94), koradoṣa (98),[834] snehavarta (99),[835] vivartana (100),[836] vartātisāra (101),[837] ūrdhvavarta (103),[838] viṣaṇḍhavarta (104),[839] ādhmānavarta (105),[840] siṅghanaka (106),[841] ekapuṭa (112), kaphoṣṭa (114),[842] gallaka (117), vālukī (118),[843] āvāntaka (119), jiṭkāstambha (120),[844] saṃrambhajvara (137), abhitāpajvara (138), bodha (140), urastāpa (146), praskanna (147),[845] anuskanna (148),[846] liṅgita (149), vātabalā (150),[847] amaṇḍaka (151),[848] alūkapāda and māṃsacchedalaṅgita (152),[849] abhighātalaṅgita (153), vidārī (154),[850] kaṇḍarālaṅgita (155), upajaṅghā (156),[851] śroṇīpatī (158),[852] daṃśapitta (164),[853] koṣṭarājī (166),[854] vartinī (168),[855] kacchapa (169),[856] ekāṅgaroga (171),[857] droṇikā (172 and 173),[858] vālāda (174),[859] unitaroga (180),[860] phalaskanna (181),[861] aṇḍacālī (182),[862] raktāṇḍa (183), pittāṇḍa (184), kaphāṇḍa (185),[863] pucchāṇḍa (186),[864] aśrupāta (191),[865] utkarṇa (206), pṛṣṭhastambha (207),[866] kapotaniṣāda (208), mṛgaroga (209), mṛgajṛmbhita (210), bhārābhikhinna (212),[867] yoktrābhighāta (213),[868] vyānaka (214),[869] nīraṇaka (215),[870] vidhuragraha (216),[871] balamattapānamatta (217), rātrihita (219),[872] prāvāraka (220),[873] pranunna (221),[874] budbuda (223),[875] paridhāvaci (226),[876] sūcyandhā (227),[877] nāyaprekṣi (228),[878] muñja (230),[879] muñjajāla (231),[880] añjalikārika (233),[881] udakagraha (235),[882] varuṇagraha (236), gardabhaka (249), kaṇṭhaśālūka (251), uroghāta (253), vislutāṇḍa (256), rājī (259),[883] kṣudhātaṅka (264), durmanas 265), saṃcatakī (266), ḍagraha (270), jikāstambha (271),[884] possession by pūtanāsa (273), and nyāsa (274).

Vāhāḍa refers to Śālihotra.

Vāhāḍa was a son of Vikrama.[885]

Vāhāḍa's work is earlier than A.D. 1000 according to P.K. Gode; his conclusion is based on the fact that it does not describe the pārasīka, tājika and turuṣka breeds of horses, which are mentioned as the best breeds by Jayadatta, Nakula and Someśvara.[886] A.-M. Blondeau dates the work to the period A.D. 700–1000; she is convinced that Vāhāḍa's work is earlier than the Sanskrit version of Śālihotra's *Aśvāyurveda*.[887]

VAIŚAMPĀYANA: (1) *Aśvāyurvedasārasindhu*;[888] (2) *Gajaśāstra*.[889]

The edition of Nakula's *Aśvaśāstra* contains the chapter called manaḥsattvavijñāna of the *Sārasindhu*, also called *Śālihotravaiśampāyanīya*.[890] The *Vaiśampāyanīya* is quoted in the anonymous *Gajaśāstra*. Vaiśampāyana is referred to in Basava's *Śivatattvaratnākara* (7.2.207).

VĀJIRAHASYAŚATAKA.[891]
VĀJIŚYENALAKṢAṆA.[892]
VĀJIŚYENAPARĪKṢĀ.[893]
VĀJIŚYENAŚĀLIHOTRA.[894]
VARĀHA: *Śālihotra*.[895]
VARĀHAMIHIRA: *Bṛhatsaṃhitā*.[896]
VARDHAMĀNA: *Yogamañjarī*.[897]
VEDAVYĀSA: *Gajalakṣaṇacikitsā*.[898]
VIDYĀNĀTHA: *Anūparatnākara*.[899]
VĪRASOMA: *Hastivaidyaka*.[900]
VĪRAVIKRAMADEVA MAHĀRĀJA: *Aśvaśāstra*.[901]
VIṢṆUDĀSA: (1) *Aśvadarpaṇa*;[902] (2) *Aśvalakṣaṇa*.[903]

VIṢṆUDHARMOTTARAPURĀṆA. Three chapters of this work deal with veterinary subjects: gocikitsāvarṇana (II.43), aśvacikitsā (II.46), and hasticikitsā (II.49).

YOGARĀJA: *Aśvaphalaprakāśa*.[904]

Part 10

Works on rasaśāstra and ratnaśāstra

Chapter 1
Ānandakanda

The *Ānandakanda*[1] is a very elaborate text on alchemy in the form of a conversation between Bhairava[2] and Bhairavī.[3]

Contents[4]

The treatise consists of about 6,900 verses, arranged in two sections (amṛtīkaraṇaviśrānti and kriyākaraṇaviśrānti), which are divided into twenty-six and ten chapters (ullāsa) respectively, followed by two addtional chapters (pariśiṣṭa).

The amṛtīkaraṇaviśrānti deals with the processing of mercury, the kriyākaraṇaviśrānti with the processing of metals, minerals, gems, etc.

The subjects of chapter one of section one (61 1/2 verses) are: introduction (1–8ab), the origin of mercury and its varieties (1.8cd–27ab), the names of mercury and their etymology (27cd–34ab), generalities on the doṣas of mercury (34cd–38ab), the five avasthās (38cd–39ab), the five gatis (39cd–42ab), the doṣas and their effects on the human system (39cd–53ab), and a ritual (53cd–62ab).

Chapter two (270 verses) deals with the teacher and his pupil (2–10ab),[5] the kākinī and a substitute for her (10cd–21), the rasaśālā (22–37ab), rituals to be performed (37cd–199ab), a eulogy of mercury (199cd–221ab), and a stotra addressed to mercury (221cd–270).

Chapter three (125 verses) is about the initiation ritual (dīkṣā).

Chapter four (518 verses) lists the saṃskāras (1–6) and describes these operations: svedana (11–24ab), mardana (24cd–29ab), mūrchā (29cd–35ab), utthāpana (35cd–36), the three types of pātana (37–53ab), nirodhana (53cd–57), niyāmana (58–60ab), dīpana (60cd–65ab), anuvāsana (65cd–66), cāraṇa (69cd–170ab), jāraṇā (170cd–391), garbhadruti (392–422ab), bāhyadruti (422cd–435), rañjana or rāga (436–469), the three types of sāraṇā (470–489), vedha (490–509), and krāmaṇa (510–518).

Two types of cāraṇa are described, samukha- and nirmukhacāraṇa, four varieties of mukhīkaraṇa (71–96ab), and twelve ways to achieve abhrakacāraṇa (98–149).

Other subjects of chapter four are the preparation of abhrakasattva (174–187; five methods), dvandvamelāpana (188–243ab), bījas (243cd–328), biḍas (329–359), the druti of mica, gold and gems (423cd–429), drutimelāpana (429cd–435), rañjanataila (437–440), and sāraṇataila (480–489).

Chapter five (86 1/2 verses) is concerned with bhūcarī jāraṇā (2–9),[6] khecarī jāraṇā (10–16ab),[7] another type of jāraṇā (16cd–20),[8] jāraṇā again (21–33ab),[9] the jāraṇā of gems (33cd–45),[10] dhūmavedhirasa (46–52),[11] some methods to achieve vedha (53–

62),[12] grades of vedha dependent on the amount of grāsa assimilated (jīrṇa) by mercury (63–71),[13] the properties of mercury when it has assimilated a sixfold amount of abhraka (72–75ab), the order in which mercury should be made to digest and assimilate other substances, the amount of grāsa to be added, the effects of the addition of each grāsa (75cd–83ab),[14] and, finally, the general effects of each of the saṃskāras (83cd–87ab).

Chapter six (129 1/2 verses) is about dehavedha, i.e., the transformation of the body. Its subjects are: the preparatory purification of the body by means of pañcakarman (4–18ab), other purificatory measures (18cd–30), āroṭarasa and its uses (31–39), khoṭabaddharasa and the way to use it (40–85ab), dietary and behavioural rules (85cd–106ab), rasājīrṇa and its treatment (106cd–114ab), and vedha of the seven dhātus of the body (114cd–130ab).

Chapter seven (188 1/2 verses) deals with the origin of the gems (1–5); diamonds (vajra), their varieties, characteristics and uses (6–14), their purification (15–19), vajrabhasman as a rasāyana (20–35ab), vajraudana (35cd–39), the liquefaction (druti) of diamonds (40–42ab) and other gems (42cd–44), and the properties of vajrabhasman (45–49ab); gold, its varieties, purification, bhasman, its use as a rasāyana, its liquefaction (49cd–82); kānta(loha), its origin and varieties (83–96), the extraction of its essence (sattvapātana; 97–104), its properties and purification (105–111ab), mantras to be employed (111cd–115), the preparation of the bhasman, its amṛtīkaraṇa, pāka, and uses as a rasāyana (116–139ab),[15] the liquefaction of kānta (139cd–140ab); the four types of iron (kiṭṭa, muṇḍa, tīkṣṇa, kānta) and the superiority of kānta for alchemical purposes (140cd–143ab); mica (abhraka), its origin, four varieties, the superiority of the variety called vajra, the preparation of dhānyābhraka (143cd–164), the extraction of abhrakasattva (165–168),[16] the bhasman of the sattva (169–174), the uses of the sattva (175–183ab), the liquefaction of the sattva (183cd–185ab), and the properties of mica (185cd–189ab).

Chapter eight (22 verses) gives an account of rasāyana and the order in which various preparations should be used.

Chapter nine (196 verses) deals with the preparation of rasāyanas.

Chapter ten (140 verses) is about fifteen different ghuṭikās (15cd–102ab), plants and other drugs employed in krāmaṇa (1102cd–107), the effects of the pills (ghuṭikā) described (1108–140ab), and a mantra (140cd).

Chapter eleven (42 verses) describes bhūtakālāntakarasa.[17]

Chapter twelve (200 verses) is devoted to the mountain Śrīśaila (= Śrīparvata) and the numerous holy places there, where siddhis can be acquired; the chapter ends with mantras.

Chapter thirteen (38 verses) is concerned with sulphur (gandhaka), its origin, four varieties, purification, and uses as a rasāyana.

Chapter fourteen (47 verses) deals with poisons, their origin (12–12), varieties (13–25), purification (26–27), uses as a rasāyana (28–31), and the disorders caused by poisons, followed by the treatment of these disorders (31–47).

Chapter fifteen (634 verses) describes kalpas of thirty-eight divine herbs (divyauṣadhi).

Chapter sixteen (127 verses) is about the following subjects: aṅkolakalpa (11–13),[18] other rasāyanakalpas (14–25), mahākāmeśvarakalpa (26–33), mixtures of organic and inorganic substances (34–37), mahānīlītaila (38–43ab), candanādyataila (43cd–51ab), a rasāyana used in massage (udvartana; 51cd–60), kalpas used in blackening the hair (keśarañjana; 61–109ab), and rules for the digging up of divyauṣadhis (109cd–127).

Chapter seventeen (94 1/2 verses) is about the drinking of water in the early morning (uṣaḥpāna) as a rasāyana.[19]

Chapter eighteen (476 verses) discusses the daily regimen (dinacaryā, 1–381; rātricaryā, 382–476), chapter nineteen (21 verses) the regimen during the seasons (1–183ab); chapter nineteen includes descriptions of the digestive process and metabolism (183cd–204); it ends with verses on the digestive fire (205–219ab).

Chapter twenty (196 verses) is devoted to jīvanmukti, the means to attain this state, and yoga.

Chapter twenty-one (110 verses) describes the construction of the hut (kuṭī) used for rasāyana, the procedure itself, and its results.

Chapter twenty-two (88 verses) describes vandāka, several kinds of this plant, and vandākakalpas.[20]

Chapter twenty-three (749 1/2 verses) deals with the purification (śodhana) of mercury (13–34; seven methods), vaḍavānalabiḍa (35–43ab), the preparation of mercurial ashes (pāradabhasman; 43cd–127: thirty-one methods), the preparation of gandhapiṣṭī (129–149ab; six methods), piṣṭīstambhana (149cd–154ab), piṣṭījāraṇa (154cd–158ab), piṣṭīmāraṇa (158cd–164ab), bandhas of mercury (164cd–211: vaikrānta-, gandhaka-, gandhakasvarṇa-, mūlikābandha), mūrchanā (212–241; nine methods), kalpas resulting in the bandha of mercury (242–408: mūlikābandha), kartarīrasabandha (409–417ab), a number of udakabandhas (417cd–527ab), some ghuṭikās (527cd–557), some rasāyanakalpas (558–584ab), baddhajāraṇā (584cd–586), three types of bandha: mūla-, sāra- and pākabandha (587–593ab), drutibandha (593cd–597ab), drutimelana (597cd–599), types of vajrabandha (600–648ab), bandhas suitable to attain vedha (648cd–727ab), vajrahemadvandvamelāpana (727cd–742ab), and ratnadrutibandha (742cd–750ab).

Chapter twenty-four (207 verses) is devoted to the bandha of mercury by means of mahārasas, uparasas and lohas.[21] Its subjects are: vaikrāntabandha (22–37; ten methods), kāntabandha (38–41ab), capalabandha (41cd–54ab; three methods), gandhakabandha (54cd–95; eight methods), tālakabandha (96–102ab), several types of laghubandha (102cd–154ab), nigalabandha (154cd–178), mūrchā (179–189ab), and jalūkābandha (190cd–208ab).

Chapter twenty-five (114 verses) gives definitions of technical terms (paribhāṣā).[22]

Chapter twenty-six (244 verses)[23] gives an account of the yantras (1–148ab), mūṣās (148cd–186ab), koṣṭhīs (210cd–214), puṭas (218cd–237), and some related subjects.

Chapter one of the kriyākaraṇaviśrānti (363 verses) is devoted to the uparasas. It begins with lists of the uparasas (4–9ab), lohas (9cd–10), ratnas (11) and uparatnas (12–13cd).

Subjects dealt with in this chapter are: gandhaka (sulphur; 13cd–47); haritāla (48–73ab); manaḥśilā (73cd–88); mākṣika (89–140); abhraka (mica; 141–180ab);[24] hiṅgula (cinnabar; 180cd–190); gairika (191–194ab); capala (194cd–204ab); śilājatu (204cd–215); bhūnāga (216–228ab); haridrāśman (228cd–229ab); agnijāra (229cd–234); rasaka (235–243); mayūratuttha (244–251ab); kaṅkuṣṭha (251cd–252); girisindūra (253–254); ṭaṅkaṇa (255–257ab); kampillaka (257cd–258); vatsanābha (259–261); kāsīsa (262–265); gaurīpāṣāṇaka (266); tuvarikā (267–268); podāraśṛṅgika[25] (269–270); sindūra (271–273); rasāñjana, nīlāñjana, sauvīrāñjana and sroto'ñjana (274–286); aphena[26] (287–292); puṣpāñjana (293–294); śaṅkha and kṣudraśaṅkha (295–298ab); śukti (298cd–300); jalaśukti (301–302ab); kaparda (302cd–308ab); sābuṇi (308cd–310ab); navasāra (310cd–312ab); saurāṣṭrī (312cd–313ab); ākhupāṣāṇa (313cd–315ab); sarjarasa (315cd–318ab); guggulu (318cd–324); yavakṣāra (325–326); sarjika (327–328ab); lavaṇakṣāra (328cd–330ab); vajrakakṣāra (330cd–332ab); sāmudralavaṇa, saindhava, kācalavaṇa, biḍa, and sauvarcala (332cd–343); amlavetasa (344–347); kāca (348); chagaṇa (349–350ab); aṅgāra (350cd–351ab); sikatā (351cd–352ab). The chapter ends with verses on the purification of the uparasas (352cd–363).

Chapter two (48½ verses) is devoted to gold, its names, varieties, purification, the preparation of its bhasman, and its properties. Silver and copper are dealt with in the same way in chapters three (33 verses) and four (60 verses).

Chapter five (81½ verses) is about iron, its origin and three types (1–6), kāntaloha, its names and properties (7–17ab), purification (17cd–28ab), the preparation of its bhasman (28cd–61ab; nine methods), the amṛtīkaraṇa of the bhasman (61cd–66ab), lohapāka (66cd–68ab), the examination of the bhasman and its properties (68cd–82ab).[27]

Chapter six (37½ verses) deals in the same way with tin (1–16ab) and lead (16cd–38ab).

Chapter seven (111½ verses) deals with pittala (brass; 1–11ab); kāṃsya (bronze; 11cd–18ab); vartaloha[28] (18cd–24ab); alloys (24cd–28); abhrakasattva,[29] its four varieties (29–30ab), the extraction of abhrakasattva (30cd–34ab), the varieties called kaṭhina, mṛdu and bīja (34cd–60ab), the purification (nirmalīkaraṇa) of abhrakasattva (60cd–65), the preparation of abhrakasattvasindūra (66–86ab; four methods), sthālīpāka (86cd–89), the amṛtīkaraṇa of lohabhasman (90–92), the properties of abhrakasattvasindūra (93–99); maṇḍūra (100–106ab); the quantities of a series of substances to be used in the purification and māraṇa of mercury, metals, etc. (106cd–112ab).

Chapter eight (218 verses) gives an account of the ratnas (1–166ab) and uparatnas (166cd–218). Its subjects are: māṇikya (4–15ab); muktā (15cd–21); pravāla (22–30); marakata (31–40); puṣparāga (41–46); vajra,[30] its names, the places where it is found, its varieties, qualities and blemishes (47–57ab), purification (57cd–66), the killing of its varieties (67–76ab) and of vajra in general (76cd–115; fourteen methods), its mṛdūkaraṇa (116–131; six methods), druti (132–136ab), and properties (136cd–139ab); nīla (139cd–149ab); gomeda (149cd–155ab); vaiḍūrya (155cd–164); the group of five ratnas and the group of nine ratnas (164cd–166ab); sūryakānta (166cd–171); candrakānta (172–174); sphaṭika (175–176ab); vaikrānta (176cd–193); rājāvarta (194–204ab);

sasyaka (204cd–208); vimala (209–217); peroja (218).

Chapter nine (110 verses) discusses in its introductory verses the herbs used in alchemical operations (the kulauṣadhis), which are to be distinguished from those useless for this purpose (the tṛṇauṣadhis). The kulauṣadhis are divided into four groups: rasauṣadhis, mahauṣadhis, siddhauṣadhis and divyauṣadhis (1–19ab). The divyauṣadhis belong to six groups, called vṛkṣa, vallī, latā, gulma, tṛṇa and vandānika (18). Chapter nine describes the sixty-four divyauṣadhis (19cd–97) and ends with an enumeration of these plants (98–111).

Chapter ten (235 verses) describes eighty-eight mahauṣadhis (1–224) and ends with an enumeration of these plants (225–235).

The two pariśiṣta chapters (paribhāṣā: 121 verses; prakīrṇaka: 163½ verses) consist of quotations from the *Abhidhānakāmadhenu*, *Ajīrṇamañjarī*, *Devīyāmala*, *Rasadarpaṇa*, *Rasakāmadhenu*, *Rasamañjarī*, *Rasapaddhati*, *Rasaprakāśasudhākara*, *Rasaratnākara*, *Rasaratnasamuccaya*, *Rasārṇava*, *Rasasāra*, *Rasāvatāra*, *Rasendracūḍāmaṇi* and *Śaktyavatāra*.

The *Ānandakanda* is quoted in the commentary on the *Aṣṭamahāmātrā*, Gulrājśarmamiśra's commentary on the *Āyurvedaprakāśa* (ad 1.363), Somadevaśarman's commentary on the *Āyurvedaprakāśa*, and the *Rasatattvavivecana*.[31]

Special features[32]

The five avasthās of mercury are: dhūma, ciṭiciṭi, maṇḍūkapluti, sakampa and vikampa (I.1.38cd–39ab).[33] The five gatis are: jalavadgati, dhūmagati, haṃsavadgati, kiṭṭanibhā gatiḥ, and jīvavadgati (I.1.39cd–42ab).[34] The fourteen naisargikadoṣas are: pārthiva or bhauma, āpya, āgneya, ānila or vāyavya, nābhasa, gajacarmākhya or gajatvac, puṇḍarīka, visarpa, hāridra, raktacarmākhya, nāraṅga, raktabinduka or raktabīja, asahyāgni, and maṇḍūka (I.1.42cd–44ab).[35] The seven kañcukas or aupādhikadoṣas are: kālikā, malinī, kapotī, raktakañcukā, salomī, girijā, and piṅgalī (I.1.44cd–45).[36] The three yaugikadoṣas are viṣa, nāga and vaṅga (I.1.46ab).[37] Each of the twenty-four doṣas is associated with a particular disorder (I.1.46cd–53ab).

The worship of Rasabhairava and Rasāṅkuśī are important topics of chapter two. Numerous other deities are mentioned, among whom are the ten Dūtīs (I.2.122–123),[38] the eight Vidyeśvaras (I.2.127), the seven Mothers (I.2.163),[39] the Yoginīs,[40] Śaktis, Kubjikā (I.2.164–165), etc. Mantras are frequently mentioned. Bhūtaśuddhi is elaborately described (2.97–194ab). The verses on rasasandhyā (I.2.40–62) are peculiar to the *Ānandakanda*.[41]

Chapter three discusses five types of dīkṣā: samayā- (I.3.9–56), sādhaka- (I.3.57–70), nirvāṇa- (I.3.71–81), ācārya- (I.3.82–96), and siddhadīkṣā (I.3.97–109).[42] The verses on the samayādīkṣā enumerate the nine Nāthas[43] and the sixteen Siddhas. The names of the nine Nāthas are: Ādinātha,[44] Mīnanātha,[45] Gorakṣa,[46] Koṅkaṇeśvara,[47] Jālandhreśa,[48] Kandhanīśa,[49] Oḍḍīśa, Ciñciṇīśvara,[50] and Cauraṅgi[51] (I.3.47–48ab). The sixteen Siddhas[52] are: Cauraṅgi,[53] Carpaṭi,[54] Ghoḍācūli,[55] the two Rāmas,[56] Bholagovinda, Vyāḍi,[57] Nāgārjuna,[58] Koraṇḍa,[59] Śūrpakarṇa,[60] Muktāyī, Revaṇa,[61] Kukkurapāda,[62] Śūrpapāda, Kaṇaurika,[63] and Kiṅkiṇika (I.3.48cd–50).

The list of the eighteen saṃskāras at the beginning of chapter four (I.4.1–6) omits grāsapramāṇa, krāmaṇa and sevā; anuvāsana is a saṃskāra; the three types of sāraṇā are regarded as three distinct saṃskāras.

Divine plants (divyamūlikā), employed in the cāraṇa of mica (abhraka) are: agnidhamanī, bṛhatī, ciñcikā, haṃsapādī, indravāruṇī, karkoṭī, khaṇḍajārī, kumārī, lāṅgalī, maṇḍūkī, puṅkhā, rambhā, śaṅkhapuṣpī, sarpākṣī, vajrī, and vyāghrapādikā (I.4.154cd–156). Four bījas are said to be important: hema-, tāra-, nāga- and vaṅgabīja (1.4.250cd–254ab); a fifth type described is tāmrabīja (I.4.318cd–320).

Sixteen different biḍas are described (I.4.330–359). Anusāraṇā and pratisāraṇā are described as simple repetitions (once, respectively twice) of the operation called sāraṇā (I.4.489). Types of vedha are not distinguished in chapter four.

Some purificatory measures, to be taken before the ingestion of mercurial preparations, are said to remove the lavaṇa-, kṣāra- and amladoṣa from the adept's body (1.6.18cd–23ab).[64]

Diamonds and their processing are dealth with in chapter seven (I.7.1–49ab), separately from the other gems. Three types of gold are distinguished: rasavedhaja (gold made by means of transmutation), kṣetrasaṃbhava (naturally occurring gold) and lohasaṃkaraja (products resembling gold) (I.7.50–52ab). Five varieties of kāntaloha are described: bhrāmaka, cumbaka, karṣaka, drāvaka and romaka (I.7.87–96).[65]

The names of the pills (ghuṭikā) described in chapter ten[66] are: mṛtasaṃjīvanī, divyā, kāmeśvarī, hemasundarī, madanasundarī, khecarī, vajreśvarī, mahāvajreśvarī, vajrakhecarī, kālavidhvaṃsinī, gaganeśvarī, vajraghaṇṭeśvarī, vajrabhairavī, tripurabhairavī, and mahābhairavī.[67]

Place-names, names of deities, etc., occurring in chapter twelve, are: Acaleśvara (169), Acchatailagiri (148), Alampura (75; 77), Amareśvara (170), Āvartaka (46), Bhīmapāduka (75), Bhṛgupātana (145), Brahmeśvara (68), Caṇḍikā (71), Candraguptaprākāra (150), Chedikīdvāraka (138), Dādhikavāṭaka (148), Dakṣiṇā (141), Devahrada (155), Ḍoṅgalikā (190), Durgā (69), Gaṇādhipa (123), Ghaṇṭāsiddheśvara (8; 11), Guṇḍiprabhā (159), Hastiśilā (52), Hastiśiras (52), Ileśvara (168), Īśāna (126), Kadambeśvaradeva (133), Kākalārī (192), Kālakaṇṭheśa (163), Kapoteśa (137), Kapoteśvara (141), Kokilābila (34), Koṭīśvara (168), Kṣetrapālaka (121), Kuṇḍaleśvara (48), Liṅgādri (182), Mahānanda (162), Maheśvara (80), Maṇipalli (29), a yakṣiṇī called Mohalī (104), an elephant called Mohana (152), Nīlavanī (157), Padmāvatībila (127), Pāṭhakarṇeśvara (175), Piṇḍikā (184), Puruṣeśvaradeva (49), Puṣpagiri (137), Rāmeśvara (45), Sarveśvara (189), Sparśaśilā (151), Śrīmālinīśvara (165), Śrīmallikārjuna (8), Sureśvara (43), Svargapurīnātha (39), Svarṇaśilā (170), Tambīpura (161), Tripurāntaka (22), Umāparvata (165), Vajreśvara (43), and Yogīśvarī (77).[68]

Chapter fourteen describes ten poisonous substances of vegetable origin that are unsuitable for rasāyana purposes: kālakūṭa, dardura, hālāhala, meṣaśṛṅga, mohada, granthi, karkaṭa, raktaśṛṅgi, haridra, and kesara (I.14.13–14); the eight suitable poisons are: śvetaśṛṅgī, vatsanābha, sarṣapa, śṛṅgī, vāluka, mustaka, saktuka, and kardama (14.15–16ab). The eight stages (vega) of intoxication are dealt with (14.33–35ab).

The kalpas described in chapter fifteen are called after the following thirty-eight divyauṣadhis: brahmavṛkṣa (3cd–51),[69] śvetabrahmavṛkṣa (52–60ab),[70] muṇḍī (60cd–70ab),[71] devadālī (70cd–91),[72] śvetārka (92–97ab),[73] hastikarṇī(palāśa) (97cd–101),[74] rudantī (102–111ab),[75] nirguṇḍī (111cd–130),[76] śunakaśālmalī (131–138ab),[77] pathyā (138cd–156ab),[78] āmalakī (156cd–162ab),[79] triphalā (162cd–177ab),[80] śuṇṭhī (177cd–181), pippalī (182–191ab),[81] citraka (191cd–201),[82] bhallātakī (202–205ab), bhūmikadamba (205cd–209ab),[83] punarnavā (209cd–218),[84] bhṛṅgarāja (219–227),[85] kumārī (228–245ab), mahānīlī (245cd–253ab),[86] musalī (253cd–257),[87] indravallī (258–263ab), jyotirdruma (263cd–264), aśvagandhā (265–266ab),[88] jyotiṣmatī (266cd–304),[89] guggulu (305–312),[90] vijayā (313–499),[91] kañcukī (500–510), kukkuṭī (511–522ab), somalatā (522cd–579ab),[92] guḍūcī (579cd–587), tuvaraka (588–596),[93] somarājī (597–599ab),[94] vṛddhadāruka (599cd–620), vajravallī (621–623ab),[95] tilakṣīriṇikā (623cd–627), and brāhmī (628–634).

The elaborate description of uṣaḥpāna in chapter seventeen is a remarkable feature of the *Ānandakanda*; the sniffing up of water through the nose (nāsāpāna) is also dealt with (17.93cd–95ab).

Chapter twenty describes the ten main nāḍīs (62–64) and the ten kinds of vāyu (65–69), Kuṇḍalinī (73–82ab), mudrās and bandhas (82cd–108ab), together with other subjects known from Tantric works and treatises on Yoga.

The construction of the hut (kuṭī) for rasāyana purposes is a distinctive feature of the *Ānandakanda*, not found in other rasaśāstra texts.

Chapter twenty-two describes a long series of varieties of vandāka or badhnaka, growing on about fifty different plants and trees.[96]

The mūlikābandhas of chapter twenty-three are concerned with the following plants and substances: niśācara (244–260),[97] aṅganāyikā (261–269ab),[98] narasāra (269cd–286ab),[99] kaṅkālakhecarī (286cd–289ab),[100] mantrasiṃhāsanī (289cd–295ab),[101] irindarī (295cd–310ab),[102] kṣmāpāla (315–316ab),[103] tṛṇajyotis (338–341ab),[104] uccaṭā (341cd–346),[105] raktasnuhī (347–348),[106] sthalapadminī (349–355),[107] citraka (356–365ab),[108] jyotiṣmatītaila (365cd–370),[109] dagdharuhā (371–377ab),[110] kaṭutumbī (377cd–380ab),[111] lohadaṇḍa (380cd–386),[112] kṣīrakanda (387–392ab),[113] śākavṛkṣa (392cd–398),[114] devadālī (399–402),[115] śvetaguñjā (403–408),[116] and kartarīrasa (409–417ab).[117]

The udakabandhas of chapter twenty-three describe candrodakabandha (417cd–428ab),[118] viṣodakabandha (428cd–446ab),[119] saṃjīvanījalakalpa (446cd–466),[120] uṣṇodakakalpa (467–480ab),[121] and śailodakakalpa (480cd–527ab).[122]

The ghuṭikās which follow (23.527cd–557) are prepared with śailodaka,[123] the rasāyanakalpas (23.558–584ab) with rasabhasman.[124] The verses on bandha and related subjects (23.584cd–790ab)[125] mention several types of this process.[126]

Chapter twenty-four describes four types of jalūkābandha: mardana-, manmatha-, kandarpa-, and madanajalūkā (24.190cd–208ab). The operations called svedana and saṃnyāsa, described at the end of chapter twenty-five (25.112cd–115ab), are varieties of niyamana.[127]

Chapter twenty-six describes the yantras according to the *Rasendracūḍāmaṇi*.[128] Yantras added are: pātālayantra (91cd–93ab),[129] dīpikāyantra (93cd–94ab),[130] gaṅgāsāgara- or bhaṭṭiyantra (94cd–99), koṣṭhīyantra (101cd–102),[131] garbhayantra (103–106),[132] haṃsapākayantra (107–108),[133] mūṣāyantra (109–111),[134] stanayantra

(112–113), nāgamāyūrayantra (114–117), cakrayantra (118–120ab), khecarayantra (120cd–123), kāpāliyantra (124–125ab), vālukāyantra (125cd–128),[135] lavaṇayantra (129–130),[136] bhūdharayantra (131),[137] nālikāyantra (132–134ab),[138] puṭayantra (134cd–135ab),[139] pātālayantra (135cd–139ab),[140] dhūpayantra (139cd–141ab),[141] and adhaḥpātanayantra (141cd–144ab and 144cd–148ab).[142]

The mūṣās are described according to the *Rasendracuḍāmaṇi*.[143] Mūṣās added are a second type of vajramūṣā (179–180),[144] the prakāśa- and andhamūṣā (181–184ab),[145] bhasmamūṣā (184cd–185ab),[146] and a third type of vajramūṣā (185cd–186ab).[147]

The description of the koṣṭhīs (26.201cd–218ab) has been borrowed from the *Rasendracūḍāmaṇi*.[148] The same applies to the puṭas (26.218cd–237).[149]

Verses on vessels and types of fuel are added. Synonyms of the vessel called kūpikā are rūpikā, siddhā, gola and karaṇḍaka (26.238).[150] Synonyms of the vessel called caṣaka are kaṭhorī, cāṭikā, khorikā, kañcolī and grāhikā (26.239).[151]

The list of uparasas of chapter one of the kriyākaraṇaviśrānti is longer than in any other text; items found in this list, but not described in chapter one, are cīnakṣāra, lākṣā and gorocanā (1.7cd–8). The metals (loha) are twelve in number: gold, silver, copper, kānta, abhrasattva, tīkṣṇa, muṇḍaka, lead, tin, rīti (= pittala), kāṃsya, and vartaka (1.9cd–10).[152] The list of the nine gems (ratna) presents the usual series (1.11). The nine uparatnas consist of sūryakānta, candrakānta, tārakānta, kāntaka,[153] vaikrānta, nṛpāvarta (= rājāvarta), sasyaka, vimalā, and peroja (1.12–13ab).[154]

Godantī is a synonym of haritāla (1.48). Hiṅgula is of three varieties: carmāra, śukatuṇḍaka and haṃsapāda (1.181cd–182ab). Gairika is of two kinds: svarṇagairika and pāṣāṇagairika (1.191–192ab). Ten varieties of capala are mentioned (1.195–196ab), two varieties of śilājatu: gomūtra- and karpūraśilājatu (1.205). Synonyms of haridrāśman[155] are niśāgrāva, pītāṅga and pītagharṣaṇa (1.128cd). Two varieties of kaṅkuṣṭha are distinguished: hema- and tārakaṅkuṣṭha (1.252ab). Kāsīsa is of three types: kāsīsa, puṣpakāsīsa and hīrakāsīsa; some authorities mention four varieties: yellow, black, white and red (1.263–264ab). Four kinds of aphena[156] are described: white or jāraṇa, black or māraṇa, yellow or dhāraṇa, and karbura or sāraṇa (1.289–290).

A noteworthy feature is the description of sābuṇi and the enumeration of its synonyms (1.308cd–309ab),[157] as well as the description of ākhupāṣāṇa (1.313cd–315ab).[158] Sarjarasa or rāla is said to be of five varieties: red, yellow, black, white, and multicoloured (1.316–317). Five varieties of guggulu are mentioned: mahiṣākṣa, nīlaka, padma, kumuda, and suvarṇa (1.320cd–321ab).[159] Noteworthy among the kṣāras are lavaṇakṣāra or loṇāra (1.328cd–330ab)[160] and vajrakakṣāra (1.330cd–332ab). Amlavetasa, which has many synonyms, is of two kinds: śaṅkhadrāvin and māṃsadrāvin (1.344–347).

Chapter seven of the kriyākaraṇaviśrānti mentions four types of abhrakasattva: kaṭhina, mṛdula, druti and bīja (7.29–30ab). The preparation of the kaṭhina, mṛdu and bīja types is described (7.30cd–60ab); the preparation of the druti type is absent.[161] The same chapter gives an account of the preparation of abhrakasattvasindūra, which is red in colour (7.66–86ab).

The red ruby (māṇikya), found in Siṃhala, is called padmarāga; the yellow variety, called kuruvinda, occurs in Kālapura; the saugandhika, coloured like an aśoka shoot, is found in Āndhra; the nīlagandhi, of a blue hue, occurs in Tumburu[162] (8.10–11). Diamonds of particular colours are found in Pauṇḍra,[163] on the Mataṅgagiri,[164] in the Himālaya, in Saurāṣṭra, Supāra,[165] Kosala, Kaliṅga, and on the banks of the river Peṇṇā[166] (8.49–54ab).[167] Eight varieties of vaikrānta are mentioned (8.177cd–178ab). Garuḍodgāra, usually one of the names of the emerald, is used as a synonym of sasyaka (8.204cd). Synonyms of peroja are harinmaṇi[168] and haritāśman (8.218).

The sixty-four[169] divyauṣadhis described in chapter nine are: somavallī,[170] somavṛkṣa,[171] sthalapadminī,[172] gonasā,[173] uccaṭā,[174] īśvarī,[175] bhūtakeśī,[176] kṛṣṇalatā,[177] laśunavallī,[178] rudantī,[179] vārāhī,[180] saptapattrī,[181] nāginī,[182] sarpiṇī,[183] chattriṇī,[184] gośṛṅgī,[185] jyotirlatā,[186] raktavallī,[187] pattravallī,[188] kākinī,[189] cāṇḍālī,[190] tāmravallikā, pītavallikā, vijayā,[191] mahauṣadhi,[192] devadālī,[193] mraṅkṣaṇagandhinī or navanītakagandhī,[194] gāruḍavallī,[195] tumbinī,[196] bhūtumbinī, gandharvā, vyāghrapādī, mahauṣadhi,[197] gomārī, triśūlī,[198] rutasīvallikā,[199] tridaṇḍī, bhṛṅgavallī, camarikā, karavīralatā, vajravallī,[200] vāravallī,[201] rohiṇī, bilvinī, gorocanalatā,[202] akṣarā,[203] apattrā,[204] kuṭajavallī, mūlakandā, brāhmaṇī, munivallī or ghṛtagandhā, nimbakālatā, tilakandā, atasīvallikā, bodhilatā, madyagandhā, kūrmalatā, mādhavī, viśālā, mahānāgā, maṇḍūkalatikā, udumbaralatā, and citravallī.[205]

Chapter ten describes the following eighty-eight mahauṣadhis:[206] himajā or yavaciñcā, kāravī, kaṭutumbī, jyotiṣmatī, liṅginī or īśvarī, pātālagaruḍī, girikarṇī, ākhukarṇī, vārāhi, devadālī,[207] aindrī (= indravāruṇī),[208] gojihvā, kakatuṇḍī, raktapādī, punarnavā,[209] atyamlaparṇī, kartoṭakī, śarapuṅkhā,[210] bhṛṅgarāja,[211] guḍūcī,[212] mūrvā,[213] śaṅkhapuṣpī, kākajaṅghā, śatāvarī,[214] gokṣura, kākamācī, ādityabhaktā, nākulī,[215] kṣīrakanda,[216] sinduvāra,[217] araṇyakārpāsī, kokilākṣa, bṛhatī, kaṇṭakārī, guñjā,[218] vṛddhadāruka,[219] bākucī,[220] apāmārga, prapunnāṭa (= cakramarda), viṣamuṣṭi, kāṇḍīra, hastikanda, samudraśoṣī, gorakṣadugdhī,[221] bhūpāṭalī, medā, mahāmedā, kākoli, kṣīrakākolī, vṛddhi, ṛddhi, jīvaka, ṛṣabha, ādityaputra, hastikarṇī,[222] kapikacchū, karṇasphoṭā, rudrajaṭā, nīlikā, kośātakī, jīvantī,[223] jatukā, muṇḍī,[224] viṣṇukrāntā, kumārī,[225] bhūmyāmalī, barhicūḍā (= mayūraśikhā), brāhmī,[226] taṇḍulīya, pāṣāṇabhedana, hastiśuṇḍī, kṣudrāmlikā, brahmadaṇḍī, tālī, ākāśavallī, sahadevī, lakṣmaṇā, bhūkadamba,[227] tailakanda, viṣṇukanda, trikarṇikā, nāgadantī, droṇapuṣpī,[228] amṛtasravā, putradātrī, śālmalīkanda, āvartakī, and amlapattrī.

The list at the end of the chapter adds haṃsapādī (10.234).

The author

The author of the *Ānandakanda* is unknown.[229] Some are of the opinion that it was composed by a follower of the Bhairava cult, because the treatise is said to have been expounded by Bhairava.[230] Others suppose the author to have been a resident of Śrīśaila, since this mountain and many sacred places in its vicinity are referred to in the *Ānandakanda*.[231]

Date

The fact that the *Ānandakanda* contains material that is also found in the *Rasārṇava* and *Rasendracūḍāmaṇi*, two works which are original compositions of their authors, implies that it is probably posterior to the twelfth or thirteenth century.[232] The references to Gorakṣa and Mīnānātha are in agreement with this upper limit. The same applies to the employment of the term gañjā in the vijayākalpa.[233] The resemblances between parts of the *Ānandakanda* and Nityanātha's *Rasaratnākara* are unsuitable to chronological purposes since the latter work is based on earlier sources.[234]

Chapter 2
Āyurvedaprakāśa

The *Āyurvedaprakāśa* by Mādhava[1] is a comprehensive treatise on alchemy in the service of medicine.

Contents

The work consists of about 1,800 verses, mixed with prose,[2] arranged in six chapters (adhyāya).

Chapter one (sūtasādhanādhyāya; 597 verses and prose passages) deals with the following subjects, after paying homage to Śiva, Śivā and Heramba (1–2) and a number of verses introducing the subject of the treatise (3–15): the doṣas of mercury (16–22ab); the necessity of its purification (22cd–25ab); the quantity of mercury one should employ in the purificatory processes (25cd–27ab); the ritual to be performed before starting the work (27cd–30ab); the mortar (khalva) and pestle (mardaka) (30cd–31); opinions on the number of the saṃskāras (32); a list of eighteen saṃskāras: svedana, mardana, mūrchana, utthiti, patana, rodha, niyāmana, saṃdīpana, gaganabhakṣaṇamāna, saṃcāraṇa, garbhagatā drutiḥ, bāhyā drutiḥ, jāraṇā, rāga, sāraṇa, saṃkrāmaṇa, vedha, and śarīrayoga (33–34); the first eight saṃskāras, to which the author restricts himself (35); a list of nineteen saṃskāras, i.e., the previous list, to which anuvāsana has been added (36); svedana (37–48); mardana (49–54ab); mūrchana (54cd–62); utthāpana (= utthiti) (63–67); pātana (68–85); bodhana (= rodha; 86–94); niyamana (95–100); saṃdīpana (101–103); anuvāsana (103–104); jāraṇa of sulphur, gold, mica and the essence of mica, together with many related subjects (107–251);[3] garbhadruti and related subjects (252–306);[4] bāhyadruti (307); sāraṇa (308–311); krāmaṇa (312); rañjana (313–318); vedha (319–326) and related subjects (327–350: rājavatī vidyā and hemavatī vidyā); bandha (351–390); mūrchana (391–396); the reduction to ashes (bhasmīkaraṇa) of mercury, followed by the preparation of rasasindūra and rasakarpūra (397–435); the killing (māraṇa) of mercury (436–463); jalaukābandha (464–469ab); the preparation of the pill called khecarī guṭikā (469cd–480); sevana (the consumption of the mercurial product and the rules to be observed; 481–555), and finally, a number of rasayogas (556–597).

Chapter two (uparasasādhanādhyāya; 351 verses and passages in prose) is concerned with the uparasas, called thus because some of their properties are similar to those of mercury (rasa). The group consists of gandha (sulphur), hiṅgula (cinnabar), abhra (mica), tālaka, (manaḥ)śilā, sroto'ñjana, ṭaṅkaṇa, rājāvartaka, cumbaka, sphaṭikā, śaṅkha, khaṭī, gairika, kāsīsa, rasaka, kaparda, sikatā, bola, kaṅkuṣṭhaka,

and saurāṣṭrī (1–2ab).

The subjects of this chapter are: sulphur, its mythical origin, names, varieties, properties, purification, etc. (2cd–69ab); hiṅgula, its names, varieties, properties, purification, killing, etc. (69cd–86); the names, properties, etc., of girisindūra (87), abhraka (88–172), haritāla (173–212), manaḥśilā (213–224), sroto'ñjana and other varieties of añjana (225–242), ṭaṅkaṇa (243–246), rājāvarta (247–252), cumbaka (= kāntaloha) (253–255), sphaṭikā (256–258), śaṅkha (259–263), khaṭikā (264–267), gairika (268–272), kāsīsa (273–275), rasaka (276–293), kapardikā (294–302), sikatā (303–305), bola (306–311), kaṅkuṣṭha (312–319), saurāṣṭrī (320–321), abdhiphena (= samudraphena) (322–324ab), kṣudraśaṅkha (324cd–325), śukti and jalaśukti (326–330), mṛttikā (331), paṅka (332) and kampilla (333–335), gaurīpāṣāṇaka (336–337) and navasāra (338–340), agnijāra and girisindūra (341–342), and bodāraśṛṅgaka (2.343–344).

Kampilla, capala, gaurīpāṣāṇa, navasādara (= navasāra), vahnijāra (= agnijāra) and (giri)sindūra constitute the group of the sādhāraṇarasas (345). A list of the uparasas that differs from the one found at the beginning of the chapter follows. This list enumerates gandhaka, vajra (= vajrābhra), vaikrānta, sindūra, bola, gairika, samudraphena, the two kinds of khaṭikā, śambūka (= jalaśukti), tārkṣyaja (= rasāñjana), kāsīsa, kāntapāṣāṇa (= kāntaloha), varāṭī (= kapardikā), śukti, hiṅgula, kaṅkuṣṭha, śaṅkha, bhūnāga, ṭaṅkaṇa, and śilājatu (347–349).

A disagreeing view on the rasas and uparasas is quoted; the eight rasas are, according to this authority: abhra, vaikrānta, mākṣīka, vimala, adrija (= śilājatu), sasyaka, capala, and rasaka; the eight uparasas are: gandhāśman (= gandhaka), gairikā, kāṅkṣī (= saurāṣṭrī), kāsīsa, āla (= haritāla), (manaḥ)śilā, añjana, and kaṅkuṣṭha (350–351).

Chapter three (dhātusādhanādhyāya; 296 verses and passages in prose) deals with the seven metals (dhātu): gold, silver, copper, tin, zinc, lead and iron (1). The subjects discussed are: the etymology of the term dhātu (2); the connections between a series of nine metals and the nine grahas (3–4ab); a list of seven upadhātus: tāpya (= mākṣika), vimalā, tuttha, kāṃsya, pittalaka, sindūra, and śailaniryāsa (= śilājatu) (4cd–6ab); gold, its origin, varieties, properties, purification, uses, killing, etc. (6cd–78); the origin, varieties, properties, killing, etc., of silver (79–109), copper (110–147), tin (148–180), zinc (181–183), lead (184–203), iron (204–284ab), and maṇḍūra (284cd–293).

Chapter four (upadhātukādhyāya; 140 verses and passages in prose) disscusses the upadhātus. Its subjects are: svarṇamākṣika, its names, varieties, properties, purification, and the extraction of the essence (1–17); the names, varieties, properties, purification, etc., of tāramākṣika (18–24), vimalā (25–33), tuttha (34–44), bhūnāga (45–55), kāṃsya and pittala (56–81), the alloy called pañcaloha (82–86), sindūra (87–92), and śilājatu (93–136ab).

An additional upadhātu discussed in this chapter is capala; its varieties, properties and purification are described (136cd–140).

Chapter five (ratnoparatnasādhanādhyāya; 184 verses and some passages in prose) describes the precious (ratna) and semi-precious (uparatna) stones. The subjects of this chapter are: generalities about gems (1–3); the names of the nine major gems according to the *Rasapaddhati* and *Viṣṇudharmottara(purāṇa)* (4–6ab); the names of a number of minor gems (6cd–8); names of the major gems again (9–13); diamonds (vajra), their origin, varieties, blemishes, characteristics and properties, their sizes and value, their assessment and examination (14–50); pearls (mauktika), their origin, varieties, characteristics and properties (51–66); the properties of diamonds, their purification and killing (67–88); the characteristics and properties of coral (pravāla) (89–93), pearls (94–99), rubies (māṇikya) (100–104), emeralds (marakata) (105–108), vaidūrya (109–114), gomeda (115–119), sapphires (nīla) (120–125), and puṣparāga (126–130); generalities on the gems (131–132); the five most excellent gems (pañcaratna): puṣparāga, mahānīla, padmarāga (ruby), vajra and marakata (133); the eight gems which are called maṇi: vaikrānta, sūryakānta, hīraka (diamond), mauktika, maṇi, candrakānta, rājavarta, and garuḍodgāraka (emerald) (134); the stones related to sphaṭika: gomeda, tārkṣya (emerald), vāyaja (= vaidūrya), devejyamaṇi (= puṣparāga), indu (= candrakānta), and taraṇika (= sūryakānta) (135); the names and properties of sphaṭika (136–138), sūryakānta (139–141), candrakānta (142–144), rājāvarta (145–147), and peroja (148–149); the purification and killing of the ratnas and uparatnas (550–154); some generalities on gems (155–159); vaikrānta, its origin, varieties, properties, purification, killing, the extraction of its essence (155–174ab); some generalities on the uparatnas (174cd–176); the connections between the gems and the quarters of the sky, followed by their connections with the grahas (177–178); the liquefaction of gems (179–180); the extraction of the essence from saurāṣṭrī (181–182ab) and sasyaka (182cd–184).

Chapter six (viṣopaviṣādisādhanādhyāya; 125 verses and some prose passages) deals with poisonous substances. Its subjects are: the origin of poisons (1–9ab); the names of poison, the eight saumya and ten ugra poisons deriving from bulbous and tuberous plants (9–10); the eight poisonous substances used in medicine (saumya), their characteristics and properties (11–19); the ten poisonous substances not to be employed in medicine (ugra) and their characteristics (20–34ab); the nine vegetable poisons distinguished by some authorities and the localities where they are found (34cd–40);[5] the colours of the four groups of poisons: brāhmaṇa, kṣatriya, vaiśya and śūdra (41–42); the properties of the poisons (43–47ab), their purification (47cd–61) and employment in medicine (62–79); the symptoms of poisoning and its eight stages (80–86); the treatment of poisoning and the mantras to be employed (87–107); the minor poisons (upaviṣa), seven or nine in number (108–111);[6] the purification of some upaviṣas: lāṅgalī, guñjā, viṣamuṣṭi, jepāla, dhūrtabīja, ahiphena and bhaṅgā (112–116); the preparation of viṣataila (117–118); the formula of viṣavajrapātarasa (119–120) and lavaṇabhedisudhānidhirasa (121–122), to be used as antidotes; the preparation of two alkaline fluids (kṣāra) (123–125).

The *Pākāvalī*,[7] which forms part of the *Āyurvedaprakāśa* according to the colophons of some of its MSS,[8] is absent from edition c. It is said to deal with mercurial and mineral preparations, and with various decoctions.[9] One of the MSS begins with the recipe called bṛhatpūgapāka;[10] two MSS end with the formula of mahākāmeśvaramodaka.[11] The *Rasayogasāgara* quotes a number of recipes from Mādhava's *Pākāvalī*.[12]

The *Āyurvedaprakāśa* is quoted or referred to in the *Āyurvedīya Khanijavijñāna*, Gulrājśarmamiśra's *Viśikhānupraveśavijñāna*, Hazārīlāl Sukul's commentary on the

Rasaratnasamuccaya, the *Rasadhātuprakāśa, Rasakāmadhenu, Rasatattvavivecana*, bhasmapiṣṭiprakaraṇa of the *Rasoddhāratantra*, and Yādavjī Trikamajī's *Rasāmṛta* and *Siddhayogasaṃgraha*.

The author is quoted as Āyurvedaprakāśakāra and Rasamādhava in Haridattaśāstrin's commentary on the *Rasataraṅgiṇī*, as Āyurvedaprakāśakṛt in the commentary on the *Āyurvedābdhisāra*, as Mādhava in the *Bṛhadyogataraṅgiṇī* and Āśubodha and Nityabodha Senagupta's commentary on the *Rasaratnasamuccaya*, and as Mādhavācārya in Hazārīlāl Sukul's commentary on the *Rasaratnasamuccaya*.

Sources mentioned in the text of the *Āyurvedaprakāśa* are: Bhāluki (4.57–58), Bhāskara (1.96–100), *Bhāvaprakāśa* (prose between 2.192 and 193), Govindapādāḥ (2.132), Nāgārjuna (2.281), Nityanātha (2.164), pāścātyāḥ (2.242), *Rasahṛdaya* (1.281),[13] *Rasapaddhati* (prose between 4.24 and 25), *Rasaratnākara* (prose between 1.65 and 66), *Rasārṇava* (1.127),[14] *Siddhamata* (1.299), and Trivikrama (1.186).[15]

Sources mentioned in the Sanskrit commentary of Gulrājśarmamiśra are: Agniveśa (4.110–115), Ātreya (1.538),[16] Bhāluki (4.58), *Bhāvaprakāśa* (2.188cd–192),[17] *Gaurīmata* (5.162), Govindapādāḥ (1.262), Hārīta (1.538; 4.107), *Laghuyogataraṅgiṇī* (2.193–203), Maheśvara (1.108–112),[18] Nityanātha (1.106, 391–394, 485–489ab), *Rājanighaṇṭu* (2.240 and 334–335), *Rasacintāmaṇi* (1.105, 330–334, 428cd–435, 469cd–480),[19] *Rasamañjarī* (2.112),[20] *Rasapaddhati* (1.35; 2.78–82, 133–135ab, 211; 3.30, 89–90, 135, 160, 198–199, 202, 255; 4.31–33, 56–57, 131, 133, 136–137; 5.4 and 23–24),[21] *Rasarājalakṣmī* (1.150 and 398), *Rasaratnākara* (1.106, 153–160ab, 198, 209cd–213), *Rasaratnasamuccaya* (5.67–69ab),[22] Rasavāgbhaṭa (1.523–525), Śārṅgadhara (1.174–179 and 205cd–209ab),[23] *Siddhalakṣmīśvaratantra* (1.229–230ab), *Siddhamata* (2.209), Śiva (1.499),[24] *Śivāgama* (1.118–121ab and 181),[25] Vāgbhaṭa (1.65; 2.25, 75, 123–124ab, 285; 3.31–32; 4.108–109; 6.80–85),[26] Vārttikakṛt (2.115), *Viṣṇudharmottara* (5.5–6ab), and *Yogataraṅgiṇī* (6.54cd–56).[27]

Additional authorities mentioned by P.K. Gode[28] are: dākṣiṇātyāḥ, Rāmarāja, and *Vṛddhavāsiṣṭha*.[29]

The number of borrowings from earlier works is much larger than indicated in ed. d.

The Sanskrit and Hindī commentaries of Somadevaśarman on chapter one give almost all the sources of this part of the *Āyurvedaprakāśa*.[30] Mādhava appears to be heavily indebted to the author of the *Rasendracintāmaṇi*, from which work he borrowed extensively.[31]

Other sources, mentioned by Somadevaśarman and absent from Gulrājśarmamiśra's commentary, are:[32] *Rasapaddhatiṭīkā* (1.191), *Rasaratnadīpikā* (1.351–355), *Rasaratnapradīpa* (1.401–403), *Rasaratnapradīpikā* (1.139), *Rasasaṃketakalikā* (1.182, 203–205ab, 363–365, 455, 497), and *Rasendracūḍāmaṇi* (1.57–60).

Special features

The author declares that the contents of his treatise are based on the words of his teacher and his own experience (1.6 and 13).[33]

The naisargikadoṣas or mahādoṣas of mercury are eight in number: nāga, vaṅga, mala, vahni, cāpalya, viṣa, giri, and asahyāgni;[34] the most important of this group are viṣa, vahni and mala (1.16–19ab). The doṣas are twelve in number according to another classification:[35] two yaugikadoṣas: nāga and vaṅga, seven kañcukas or aupādhikadoṣas: bhūmija, girija, vārja, two kinds of nāgaja, and two kinds of vaṅgaja, supplemented by the doṣas called viṣa, vahni and mala (1.19cd–22ab).

The ritual preceding the alchemical enterprise is described very concisely; one should praise one's guru and pay homage to Kanyā (= Kumārī), Vaṭuka (= Bhairava), Gaṇeśa, the Yoginī, and the Kṣetrapālas (1.27cd–30ab).

The saṃskāra called anuvāsana is described twice (1.104–105).[36]

Mūrchanā[37] is of various types: nirgandha- and sagandhamūrchanā; the nirgandha type is not subdivided; sagandhamūrchanā is of three varieties: bahirdhūma-, antardhūma- and nirdhūmamūrchanā; nirdhūmamūrchanā is of five types: gandhapiṣṭi, gandhabaddharasa, gandhajīrṇarasa, gandhakajjalī, and dhātupiṣṭi (1.137).[38] Two particular bījas, borrowed from the *Siddhamata*, are called lohabhekī and tārabhekī (1.298–299).[39] The *Siddhamata* employs the term bheka to designate a dhātu (1. 301).[40] The types of vedha called kuntavedha, kṣepavedha, etc., are not dealt with.[41] The alchemist is advised to sell his artificial gold in the market of a city (1.327).[42] Methods for making artificial silver and gold by means of the deposition of coloured surface-films are discussed (1.329–350: tāravatī and hemavatī vidyā).

The bandhas of mercury receive much attention (1.351–390). The descriptions of the twenty-five bandhas are taken from the *Rasaratnasamuccaya*.[43] A disagreeing view, distinguishing four bandhas, is quoted from an unspecified source; these types are pāṭa-, khoṭa-, jalaukā- and bhasmabandha (1.363).[44] Pāṭabandha is the same as parpaṭikābandha;[45] piṣṭibandha results in a khoṭaka;[46] jalaukābandha[47] is identical with pakvabandha (1.364);[48] two varieties of sūtabhasman, the product of bhasmabandha, are mentioned: ūrdhvaga and adhoga; ūrdhvagabhasman is of two kinds: rasasindūra and rasakarpūra (1.365).[49]

A process called mūrchana, but altogether different from the third saṃskāra, also known as mūrchana, makes a bhasman out of mercury (1.391–396).[50]

The twenty uparasas listed in chapter two (2.1) are the same as those mentioned in the *Dhanvantarīyanighaṇṭu* (7.92).[51] The second series of twenty (or twenty-one) uparasas (2.347–349) is not known to me from an earlier work. The third list of eight uparasas (2.350–351) is found in the *Rasahṛdaya, Rasaprakāśasudhākara, Rasendracūḍāmaṇi*, and other treatises. The eight rasas (2.350) agree with those called mahārasa in the *Dhanvantarīyanighaṇṭu*.[52]

Four varieties of sulphur are distinguished: red (called śukatuṇḍa), yellow (called āmalasāra), white (called khaṭikā) and black (2.11cd–13), three varieties of cinnabar: carmāra, śukatuṇḍaka and haṃsapāda (2.70cd–72ab), four varieties of mica: white (= brāhmaṇa), red (= kṣatriya), yellow (= vaiśya) and black (= śūdra), four varieties of black mica: pināka, dardura, nāga and vajra (2.91–93), two varieties of haritāla: pattrākhya and piṇḍasaṃjñaka (2.173–175).[53]

A time-consuming way of preparing a powerful haritālabhasman from a variety called tabakī is described according to the *Siddhamata*; this process, taking 441 days, results in a product that cures numerous diseases. Twenty-one different plant juices are

employed;[54] the purified haritāla has to be steeped in or rubbed with each of these juices for twenty-one days, followed by heating of the powder obtained for eight days. The bhasman is claimed to cure all kinds of diseases, amongst which are eighteen disorders of the blood (raktavikāra),[55] the group of kaṭhinavikāras,[56] the mūḍhavikāras,[57] phiraṅga, and the ten disorders caused by blood (raktajaroga),[58] etc. (2.209).

The four varieties of haritāla acknowledged in the *Siddhamata* are bugadādī, godantī, tabakī and piṇḍatāla (2.209).

Three varieties of manaḥśilā are described: śyāmāṅgī, kaṇavīrikā and dvikhaṇḍākhyā (2.215–217). Two varieties of sroto'ñjana are recognized by the author: sroto'ñjana, which is black, and sauvīra, which is white; another classification acknowledges five types: sroto'ñjana, sauvīra, rasāñjana, nīlāñjana and puṣpāñjana (2.225–227); the variety called kulatthikā is added (2.240–241). Capala is regarded as a sādhāraṇarasa, but hiṅgula and mṛddāraśṛṅga are not mentioned as belonging to this group (2.345). Rājāvarta, considered to be one of the uparasas or a ratna, is of two kinds: rakta and nīla (2.247–248). Two kinds of khaṭikā are described: khaṭī and gaurakhaṭī (2.264). Three varieties of gairika are distinguished: svarṇa-, sāmānya- and pāṣāṇākhyagairika (2.268–269), two varieties of kāsīsa: pāṃsu- and puṣpakāsīsa (2.273), two varieties of rasaka or kharpara: dardura and kāravellaka (2.276–278ab), three varieties of kapardikā or varāṭikā: red, white and yellow (2.294–295), supplemented by a black type with white spots (2.295cd–296ab), three varieties of bola: rakta, śyāma and manuṣyaja (2.306), and two varieties of kaṅkuṣṭha: nalikākhya and reṇuka (2.312). Kaṅkuṣṭha is regarded as a substance found in the Himālaya, but disagreeing opinions are given too (2.312–317). Two varieties of gaurīpāṣāṇa are described: a white artificial one, and a yellow, naturally occurring one (3.336–337), and two varieties of bodāraśṛṅgaka: yellow and pale (3.343).

The metals (dhātu) are seven or nine in number; the series of seven consists of gold, silver, copper, tin, zinc, lead and iron (3.1); the series of nine metals, connected with the nine grahas, comprises gold, silver, copper, tin, lead, tīkṣṇaka, āra (= pittala), kāṃsya and vartaloha (3.3–4ab). The usual varieties of gold, silver, copper, tin and lead are described. The three varieties of muṇḍaloha are mṛdu, kuṇṭha and kaḍāraka (3.206); the six varieties of tīkṣṇaloha are kharākhya, sārasaṃjñaka, huntāla, tārāvaṭṭa, vājira, and kālaka (3.207); the five varieties of kāntaloha are bhrāmaka, cumbaka, karṣaka, drāvaka and romaka (3.208). Three varieties of vimala are described: svarṇa-, rūpya- and kāṃsyavimala (4.27), two varieties of pittala (brass): rājarītikā and kākatuṇḍī (4. 69). The alloy, called pañcaloha or bharta, consists of bronze (kāṃsya), brass (pittala), copper, lead and tin (4.83).

Śilājatu has its origin in rocks or an alkaline earth (4.93); the first kind is of four varieties: sauvarṇa, rājata, tāmra and āyasa (4.94–98); another kind of śilajatu, used in fireworks (agnibāṇa),[59] is called soraka (4.133). The usual four varieties of capala are mentioned: white, black, yellowish green (harit) and red (4.136).

The nine major gems (ratna) are, according to a quotation from the *Rasapaddhati*: vajra (diamond), vidruma (coral), mauktika (pearl), marakata (emerald), vaidūrya, gomedaka, māṇikya (ruby), harinīla (sapphire), and puṣpadṛṣad (topaz); the same

series is found in the *Viṣṇudharmottarapurāṇa*, cited by Mādhava (5.4–6ab). Minor gems (uparatna) mentioned by name are: vaikrānta, sūryakānta, candrakānta, rājāvarta, lāla,[60] peroja, muktāśukti, śaṅkha, karpūrāśman, and coloured glass (kācaja maṇi) (5. 6–8). Two varieties of peroja (turquoise) are described: bhasmāṅga and harita (5.148); eight varieties of vaikrānta are referred to (5.164).

The ten poisons, derived from bulbous or tuberous plants (kandabhava), which may be used in medicine (saumya), are: saktuka, mustaka, kaurma, dārvīka, sārṣapa, saikata, vatsanābha and śvetaśṛṅgī (6.11); the ten ugra poisons to be avoided in medicine are: kālakūṭa, meṣaśṛṅgī, darduraka, hālāhala, karkoṭī, granthi, hāridra, raktaśṛṅgī, kesara, and yamadaṃṣṭrā (6.20–21). The nine vegetable poisons distinguished by other authorities are: vatsanābha, hāridra, saktuka, pradīpana, śṛṅgika, kālakūṭa, saurāṣṭrika, and hālāhala; they are said to be found in mountainous regions, in haridrā regions,[61] in the mountains, in flat regions, in Surāṣṭra, in the vicinity of kapilā riverbanks, in Ahicchattra, on the mountain Kiṣkindha, and on the mountain called Brahma respectively (6.40).[62] The minor poisons of vegetable origin (upaviṣa) are seven in number: arka, sehuṇḍa, dhattūra, lāṅgalī, karavīraka, guñjā, and ahiphena (6.108); their number is nine according to other authorities: arka, snuh (= sehuṇḍa), lāṅgalī, guñjā, hayāri (= karavīra), viṣamuṣṭi, āphena (= ahiphena), unmatta (= dhattūra), and jepāla (6.111). An added item is bhaṅgā.

The extent to which the *Āyurvedaprakāśa* consists of quotations from earlier treatises is, in particular, elucidated in Somadevaśarman's commentary. The glosses in prose can be attributed to Mādhava himself, who does not hesitate to give his own opinion on some issues[63] and refers to the tradition transmitted by his guru.[64] The views adopted by him are repeatedly indicated, followed by disagreeing opinions.

In several instances the vernacular name of a substance is recorded.[65]

The author

The author's name is Śrīmādhava Upādhyāya of Sārasvata lineage, born in Saurāṣṭra, but residing in Kāśī.[66]

Date

The earliest MS of Mādhava's *Pākāvalī* may be completed in A.D. 1713 or 1813.[67] The earliest MS of the *Āyurvedaprakāśa* dates from A.D. 1786 (IO Nr. 2696); the original of another MS may have been written in A.D. 1673/74.[68]

Two sources of the *Āyurvedaprakāśa*, namely the *Rasapaddhati* and the *Yogataraṅgiṇī*, belong to the first half of the seventeenth century. The quotations from the *Bhāvaprakāśa* and the *Rasapaddhati* prove that Mādhava Upādhyāya is later than the sixteenth century.

The evidence available establishes that the *Āyurvedaprakāśa* dates from the second half of the seventeenth century.[69]

Commentaries

A Sanskrit commentary, called *Arthavidyotinī*, on the whole of the *Āyurvedaprakāśa*, was written by Gulrājśarmamiśra.[70]

This useful and lucid commentary quotes from and refers to the following authorities and works: Āḍhamalla (1.174–179), *Ādityahṛdaya* (1.139),[71] *Āgama* (1.396), Amara,[72] *Ānandakanda* (1.363), Ātreya (2.338–340), *Bhagavadukti* (1.130), *Bhāratīyarasaśāstra* by Desāī (2.276–278ab),[73] Bhartṛhari (1.130), *Bhāvaprakāśa* (1. 418–425; 6.25–34ab), *Bhāvaprakāśanighaṇṭu* (2.276–278ab),[74] *Bhuśundopākhyāna* (1.133–134ab),[75] Bindu (2.133–134ab),[76] *Bṛhadvāsiṣṭha* (1.133–134ab),[77] Caraka (1.113, 127, 382, 539, 540, 547, 559cd–561; 3.295–296), Cūḍāmaṇi (2.234 and 350–351; 3.77–78, 205, 244–245ab),[78] Ḍallaṇa (2.316–317), *Devayāmalaka* (1.481), *Devendragiri* (3.140–142),[79] Ḍhuṇḍhukanātha (1.401–403; 3.93–96),[80] Gaṅgādhara (1.547),[81] Gorakṣanātha (1.137), Govinda (1.277–280 and 308–309),[82] Govindabhikṣu (1.323),[83] Hājārīlālasukula (1.466–469ab),[84] Hemacandra (1.509–522),[85] Hemādri (2.316–317; 6.90–95), Kālanātha (1.137 and 401–403),[86] *Lohapaddhati* (2. 253; 3.207cd and 208–209), *Mahābhārata* (1.130), Maheśvara (1.108–112 and 136),[87] Medinī (1.136), Nāgārjuna (2.281–283), Nandin (2.270–272), Nārāyaṇa (3.192cd–193), *Nighaṇṭu* (1.162cd–163, 397, 428cd–435),[88] *Nighaṇṭurāja* (1.173), Nityanātha (1.106), Padmanābhasūnu (2.273–275),[89] Pāṇini (1.3), Raghunāthasampradāya (1.463), *Rasacintāmaṇi* (1.137 and 251), *Rasadarpaṇa* (1.187), *Rasahṛdaya* (often), *Rasakāmadhenu* (often), *Rasamañjarī* (often), *Rasamārtaṇḍa* (1.52–54ab), *Rasāmṛta* (3.1 and 25–26), *Rasapaddhati* (often), *Rasapaddhatiṭīkā* by Mahādeva (2.141–142; 4.133), *Rasaprakāśasudhākara* (often), *Rasaratnākara* (often), *Rasaratnasamuccaya* (often), *Rasaratnasamuccayaṭīkā* (2.276–278ab; 4.30), *Rasārṇava* (often), *Rasasaṃketakalikā* (1.399–400, 436–441), *Rasasāra* (often), *Rasataraṅgiṇī* (1.174–179, 399–400, 442–444ab, 444cd–448, 483), Rasavāgbhaṭa (2.273–275; 3.1, 6cd–10ab and 190–192ab), *Rasāyanasāra* (3.177cd–180 and 192cd–193ab), *Rasāyanasārasaṃgraha* (1.362), *Rasendracintāmaṇi* (often), *Rasendracintāmaṇiṭīkā* (1.192), *Rasendracūḍāmaṇi* (often), *Rasendrasārasaṃgraha* (often), Śaivālabhakṣya (1.191), *Śaktyavatāra* (1.88–89), *Śāligrāmanighaṇṭubhūṣaṇa* (1.277–280), *Sāṃkhyakārikā* (1.131 and 132), Śārṅgadhara (1.174–179; 3.282cd–284ab), *Śārṅgadharaṭippaṇī* (3.52cd–53), *Siddhabhaiṣajyamañjūṣā* by Jayadeva and its vyākhyā (3.30), *Siddhabheṣajamaṇimālā* (3.177cd–180), *Śivāgama* (1.118–121ab), *Śivamata* (3.3–4ab), *Śrīmadbhāgavata* (1.131), Suśruta (1.7, 127; 2.209; 3.30; 6.78–79 and 80–86), *Toḍarānanda* (1.191 and 367), Vāgbhaṭa (1.1), vaijñānikāḥ (2.350–351; 5.27), *Vāsiṣṭhamahārāmāyaṇa* (1.133–134ab),[90] *Veda* (1.1), Yaśodhara (2.91–93),[91] and yūnānīgranthakārāḥ (2.341).

The author of this commentary mentions rather often variant readings of the text of the *Āyurvedaprakāśa*.[92]

Somadevaśarman wrote two commentaries on chapter one of the *Āyurvedaprakāśa*, one in Sanskrit and called *Pradīpa*, the other in Hindī and called *Uddyota*.

Authorities and works quoted or referred to in these commentaries are:[93] *Ānandakanda* (1.223–228, 391–394, 433cd–435, 458–459, 460), *Aṣṭāṅgahṛdaya* (1.130),

Bhagavadgovindapāda, *Bhāvaprakāśa*, *Bṛhadrasarājasundara* (1.123–126 and 399–400), Cakrapāṇi's *Cikitsāsaṃgraha* (1.5), Ḍhuṇḍhukanātha (1.1), Govinda (1.307), *Mahābhārata* (1.130), *Rasacintāmaṇi*, *Rasahṛdaya*, *Rasakāmadhenu*, *Rasamañjarī*, *Rasamārtaṇḍa* (1.283–285), *Rasāmṛta* (1.408), *Rasapaddhati*, *Rasapaddhatiṭīkā*, *Rasaprakāśasudhākara*, *Rasaratnadīpikā*, *Rasaratnākara*, *Rasaratnapradīpa*, *Rasaratnapradīpikā*, *Rasaratnasamuccaya*, *Rasārṇava*, *Rasasaṃketakalikā*, *Rasasāra*, *Rasasindhu* (1.123–126), *Rasataraṅgiṇī*, *Rasendracintāmaṇi*, *Rasendracūḍāmaṇi*, *Rasendrasārasaṃgraha*, *Rudrayāmala* (1.123–126), *Sāṃkhyatattvakaumudī* (1.131), *Śārṅgadharasaṃhitā*, Somadeva, Vāgbhaṭa, *Vaidyakaśabdasindhu* (1.426–428ab), *Viśva* (1.5), Yaśodhara, *Yogaratnākara*, *Yogataraṅgiṇī*, and *Yogavāsiṣṭha* (1.133–134).

Somadevaśarman systematically indicates the metres of Mādhava's verses. Occasionally, he criticizes the readings adopted in ed. a.

Somadevaśarman was a Sārasvata brāhmaṇa, son of Raghunandanaśarman; he lived in a village called Bhavīgaṛh in the vicinity of Alīgaṛh.[94]

Chapter 3
Gorakṣasaṃhitā

The *Gorakṣasaṃhitā*[1] is a Tantric text, part of which deals with alchemy.

Contents

The edited text of the treatise[2] is divided into two sections, a Kādiprakaraṇa in twenty-seven chapters (paṭala) on Tantric subjects,[3] and a Bhūtiprakaraṇa in nine chapters (paṭala) on alchemy.[4] The Bhūtiprakaraṇa is written in the form of a dialogue between Śrīkaṇṭha (= Śiva) and Śakti.

Chapter one of the Bhūtiprakaraṇa (rasaphalāphalavarṇana; 123 verses) is of an introductory character. Some of its subjects are: the secret nature of the alchemical art, the persons to whom it may be transmitted, the praise of mercury, and the treatises on alchemy which the work summarizes.

Chapter two (dravyasaṃgrahaṇa; 105 verses) is about the nibandhana of mercury (1–5ab), the eight rasas (5cd–20ab), the eight uparasas (20cd–29), the eight rasalohas (30–40), precious and semi-precious stones (41–52), a substance of animal origin (53–56), the six kinds of salt (57–59), the three kinds of kṣāra (60ab), poisonous substances (60cd–65a), oils (65b–66), vasā (67–68ab), urine (68cd), semen and menstrual discharge (69), kṣāras (69cd–73ab), jāraka substances (73cd–77), drāvaka substances (78–81), acids (amlāni; 82–85), the rakta-, pīta-, kṛṣṇa- and sitavarga (86–97), and some alchemical operations (98–105).

Chapter three (dhātuśuddhi; 97 verses) is concerned with the eighteen saṃskāras (3cd–6), the eight saṃskāras (aṣṭavidhā śuddhiḥ) resulting in the purification of mercury (7–25ab), and the purification of the rasas, uparasas and lohas (25cd–97).

Chapter four (jīvotsargavidhāna; 152 verses) discusses the bandha of mercury; four types of bandha are referred to (3cd–4); several alchemical operations are described, in particular sattvapātana, and some apparatus (6cd–116);[5] the construction of the alchemical workshop (rasamaṇḍapa) and its inventory are dealt with (117–129ab); the chapter ends with verses on good and bad types of teachers (129cd–152).

Chapter five (bījasambandha; 302 verses) deals with samukhacāraṇa (5–44), nirmukhacāraṇa by means of divine herbs (45–57ab), types of grāsa (65–79ab), biḍa, bīja, and several operations (garbhadruti, rañjana, etc.) (79cd–302).

Chapter six (rasoparasakarman; 582 verses) is about alchemical operations involving sūryakānta (8–36ab), candrakānta (36cd–50ab), tārakānta (50cd–60), capala (61–70ab), vajra (70cd–79), raktābhra (80–96ab), sasyaka (96cd–117ab), adrija (117cd–125; = śilājatu), vimala (126–182), mākṣika (183–250ab), rasaka (250cd–297), darada

(298–309ab), gandhaka (309cd–422ab), gairika (422cd–535ab), and sauvīra (535cd–582).

Chapter seven (divyauṣadhilakṣaṇakarman; 374 verses)[6] describes the sixty-four divine herbs (divyauṣadhi; 1–106) and their uses in alchemical operations (107–152); the middle part of the chapter is devoted to vegetable poisons and their uses (153–209ab); the last part of the chapter contains a long amlavetasakalpa (209cd–326) and rules concerning the use of rasāyana preparations (350–374).

Chapter eight (229 verses)[7] gives an account of the origin of (ayas)kānta and its uses, followed by verses on some other dhātus and related subjects.

Chapter nine (śivasūtra, rasāyanavidhi; verses 74–141)[8] gives rules for the adepts and describes the results of their efforts.

The only authority mentioned is Nandin (9.134).

Special features

The Bhūtiprakaraṇa of the *Gorakṣasaṃhitā* is mainly devoted to alchemy and the objectives of its quest: dehasiddhi and lohasiddhi; preparations which are curative of particular diseases are occasionally dealt with, for example in the amlavetasakalpa (7. 210cd–326).[9]

The arrangement of the material is not very systematic. The first eight of the eighteen saṃskāras are described, the remaining ones are referred to. The yantras, mūṣās and puṭas are not characterized; the substances used in alchemical operations, their varieties, properties, etc., are incidentally described. Several groups of substances and the items belonging to these groups are, however, dealt with in chapter two. The divine herbs are discussed in chapter seven.

The main accent of the Bhūtiprakaraṇa is on the bandha of mercury. A term used to designate alchemy is bhūtitantra (2.101; 3.1) or bhūtiśāstra (2.3; 4.3). Bhūti is a term frequently employed to designate one of the aims of the alchemist; other aims mentioned are the usual ones: āyus (7.374), cakravartitva (1.109), divyadehatva (5.176), khecaratva (5.168), the siddhis (5.177), etc., next to the making of artificial gold and silver.

Śiva worship is a conspicuous feature. Mantras are repeatedly referred to; examples are the aghoramantra (6.45; 7.162), kāmikamantra (7.163), viśvarūpā vidyā (6.477 and 479; 9.130), and trailokyaḍāmaramantra (7.163).

Grammatical faults are rather frequent.[10] Some vernacular terms are also met with.[11]

Chapter one relates that a very large alchemical work (a rasatantra), in 25,000 verses, was once revealed by Svacchanda (= Śiva). Basing themselves upon this work, several gods composed their own treatises on the subject; these treatises are: Devī's *Mahodadhi* in 12,000 verses, Umā's *Rasopaniṣad* in 6,000 verses, Guha's *Rasatantra* in 6,000 verses, Vīrabhadra's *Rasatantra* in 1,000 verses, Śukra's *Rasāvaloka* in 6,000 verses, Bṛhaspati's *Rasacakra* in 8,000 verses, Candra's *Rasāṅkuśa* in 10,000 verses, and Vināyaka's *Rasodaya* in 8,000 verses (1.111–120). The Bhūtiprakaraṇa is said to be an abridgement of Śiva's original work.[12]

Chapter two describes mica (ghana) as originating from Umā's yoni (6ab); mica is of four colours: white, yellow, red and black (6cd); two varieties only are distinguished: vajra and māṇḍūka (27).[13] Mica is one of the eight (mahā)rasas:[14] abhraka or ghana, vaikrānta, vimala, rasaka, śaila, mākṣika, darada (= hiṅgula), and sasyaka (19–20). Several varieties of vaikrāntaka are referred to (8cd). Vimala is of two kinds: white and yellow (11cd–12ab),[15] rasaka of three kinds: mṛttikārasaka, guḍābha and pāṣāṇābha (12cd–13), śaila of four kinds, different in colour (14), mākṣika of two kinds: white and yellow (15ab), or of four types: kadambākāra, golakākāra, kāravellakasaṃnibha, and aṅgulīyaka (15cd–16), darada (cinnabar) of three types: camari,[16] śukatuṇḍa and haṃsapāda (17), and sasyaka of one type (18ab).

The eight uparasas are: gandha (sulphur), (harit)āla, gairika, (manaḥ)śilā, kāṅkṣī, kāsīsa, añjana, and kaṅkuṣṭha (28cd–29).[17] Haritāla is of two kinds: pale red (pāṭala) and yellow (22ab), gairika of one type (22cd–23), manaḥśilā of one type (24ab),[18] kāṅkṣī of two types: śyāmā and kapilā (24cd), kāsīsa of three types: white, śyāma and yellow (25cd–27ab);[19] añjana[20] and kaṅkustha are of one type (27cd–28ab).

An unusual group of eight rasalohas[21] is described, which may, partly at least, consist of substances called sattva in other texts.[22] The group consists of: kāntaja, khuraloha,[23] nānākārāśmaja, khaja, vaikrāntakodbhava, śailaja, sasyakasaṃbhava, and mākṣikamalaja; the colours and properties of these rasalohas are mentioned (30–40ab).

The six metals (āyasa) are: gold (agni), silver (soma), copper (arka), iron (tīkṣṇa), tin (vaṅga), and lead (nāga) (40cd).

The five rasaratnas (precious stones) are: padmarāga (ruby), indranīla (sapphire), marakata (emerald), puṣparāga (topaz), and vajra (diamond) (44cd–45ab). Nṛpāvarta (= rājāvarta), tuttha, vidruma, and artificial gems (vaiḍambaka: mock gem) are called the maṇirasas (47).[24] The group of the three mahāmaṇis consists of sūryakānta, candrakānta and tārakānta (48–50ab).

Substances useful in the bandha of mercury are: mṛganābhi (musc), māṭhara, ambujaśūka (= jalaśūka), the milky juice (payas) of rakṣura, niśāra or nṛśāra, gautamakṣāra, tagara, nāgasaṃjñita, lelītaka, srotaja, kṛṣṇāgaru, and sita (50cd–56). The six types of salt are: sāmudra, saindhava, viḍa, sauvarcala, romaka, and culikālavaṇa or navasāra (58–59). The three caustics (kṣāra) are: yava(kṣāra), svarjika and ṭaṅkaṇa (60ab).

The five (major) poisonous substances are: śaktuka, kṛṣṇa, śṛṅgika, mustaka and vatsanābha (60cd–64ab). The five upaviṣas are: snuhī, arka, karavīra, lāṅgalī and viṣamuṣṭika (64cd–65a). Oils used in alchemical operations are extracted from the plants called jyotiṣmatī, naktamāla, rubuka (= eraṇḍa), āruṣkara, akṣa, aṅkola, palāśa, bākucī, apāmārga, and unmatta (65b–66). The fatty substances (vasā; 67–68ab), urines (68cd), kinds of semen and menstrual discharge (bīja, puṣpa; 69ab) used are enumerated. A pittavarga and viḍvarga are absent.[25]

The list of plants from which a kṣāra may be prepared is long. The plants mentioned are: apāmārga, arka, aśvamāra, caṇaka, eraṇḍa, gotama, gūthavṛkṣa, kadalī, kañcukī, kāraka, kuṭaja, mokṣaka, muṣṭika, nikṣāra, nikura, niṣpāva, palāśa, rakṣuraka, raktamāla, snuhī, suradāli,[26] tila, udumbarī, unmatta, vajrakandaka, varṣābhū, and vāstuka (69cd–72). A list of acids derived from plants follows (82–84). The substances belonging to the rakta-, pīta-, kṛṣṇa- and śvetavarga are enumerated towards the end of the chapter (86–97).

Chapter three mentions the following eighteen saṃskāras: svedana, mardana, mūrchana, utthāpana, pātana, dīpana, nirodha, niyāmana, cāraṇa, garbhasaṃdrāva, jāraṇa, pātana again, grāsapramāṇa, rañjana, sāraṇa, krāmaṇa, vedha, and śarīrāvāpa (4–6).[27]

Five plants are called the five kumārikās: karkoṭī, ūṣanetrā, śukatuṇḍā, vāyasī and javā (16); ūṣapattrā, agnija, varya and the two vaṭamālās are the five vāruṇas (17cd–18ab).

The drāvika plants enumerated are: bāṣpikā, ciñcikā, halinī, kaṇā, kañcukī, kāravallikā, kośātakī, kumārikā, prāvṛttā, suradālī, sūryāvarta, vajrakanda, and vandhyā (70–71).[28]

Chapter four refers to four types of bandha (3), but describes only dravabandha (6); gola- and bhasmabandha are mentioned without being characterized (4).[29] The colours of the flames produced by various substances are mentioned (113–114).

Chapter five enumerates sixty-four plants used in the bandhana of mercury: ahilocanā,[30] ajamārī, alambuṣā, añjalikārī, aparājitā, apattrā, ardhacandrā,[31] bimbī, brāhmī, bṛhatī, citraparṇī,[32] dantī, durgandhā, gāruḍī, gojihvikā, halinī, haṃsapādī, hemapuṣpikā, īśvarī, jalamūlikā, jalaparvāmbuśītā,[33] jalapippalī, jalodbhavāpāmārga, jvālinī, kapotī, kṣīrī, kumārī, kumbhaka, kurkurī, lakṣmaṇā, māṃṣī, māṇḍūkī, mārjārapādikā, meghanādā, meṣakā, mīnākṣī,[34] mohinī, mūrti, muśalī, nāginī, nandinī, pāṣāṇabhedikā, prasāriṇī (sthalajā prasāriṇī), samaṅgā (sthalajā samaṅgā), samaṅgā (vārisaṃbhūtā samaṅgā), saracandraukasa, sārikā, sarpasugandhikā, śikhā, śikhipādī, sitagandhā khagā, śukanāsā, triparṇikā, tulasī, tuṣī, upāmbu, upodikā, utpalī (jalajā utpalī padmā), uttamā, vajrakandaka, vanakārpāsī, vanamālā, vanārjikā, vārāhī, vāyasī, vidārī, vṛścikālikā, and yavaciñcī (46–57).[35]

The types of rasa that are formed on the addition of grāsa are called daṇḍadhārin or daṇḍadhṛk, pāyasa or payasākāra, jalūkā or jalaukākāravat, vidruṣa, chedin, dadhivat, navanīta, and piṇḍa or khaṇḍa (65–71).[36]

Chapter six mentions the usual four varieties of capala (64ab). The mahārasas rasa and rasaka are praised for their suitability to make artificial gold and silver (269cd–270ab). Dānavendra is a term repeatedly employed to designate sulphur (294, 309, 315, 356, etc.).

Chapter seven is concerned with plants used in alchemy: divyauṣadhis, mahauṣadhis and rasauṣadhis (5), divided into the following types: tṛṇa, gulma, latā, vallī, vṛkṣa, and visarpiṇī (6).[37]

The plants described[38] are: ajagarī (21–22ab), āmrātakī (34), aṃśumatī or rudantī (26cd–28ab), aśokā (36), āsurī (85cd–86ab), bhedinī (52cd–53ab), bhṛṅgā (93ab), bhūkadamba (25–26ab), bhūtakeśī or kṛṣṇavallī (24), bilvātakī (100), brahmadaṇḍī (64cd–65), camarī (93cd–94ab), chattrī (39cd–40ab), devaśrī (75–77ab), devī (42), gandharvī (86cd–87ab), gāruḍī (80), gomārī (87cd–88ab), gonasī (22cd), gorocanā (101–103), gośṛṅgī (58–59), hemadaṇḍā (69), hemalatā (84cd–85ab), īśvarī (23cd), jayā (74), jyotistṛṇa, jyotirvṛkṣa, jyotiḥkanda (61cd–62ab), kālakarṇī (48cd–49ab), karavīrī (94cd–95ab), khadirapattrikā (60–61ab), kīṭamārī (77cd–78), kṛṣṇacitraka or

goptar (44), madhutṛṇā (67cd–68), nāginī (38cd–39ab), naradevī (56cd–57), nīlotpalā (49cd–50ab), padmadaṇḍī (66–67ab), palāśavallī (45–46), pītamustakikā (97), punnāgapattrikā (37–38ab), rajanī (50cd–51ab), raktavallī (62cd–64ab), rohiṇī (99), saṃvarī (28cd–30ab), śataparvā (33), savarī (40cd–41), siṃhikā (51cd–52ab), śirīṣā (88cd), somā (7–8ab),[39] somavallī (9–19ab), somavṛkṣa (8cd), śrījayā (71–72ab), sthalajā padminī (19cd–20), tāmbūlapattrī (70), tārājā (47–48ab), tilakā (53cd–54ab), tridaṇḍī (92), tripattrā (35), triśalyā (104–105), triśūlī (90–91), tumbinī (81–84ab), uccaṭā (23ab), vajrā (95cd–96), vajravallī (43), vanakustumbarī (89), vārāhī (30cd–31ab), vijayā (72–73), vīravallī (798), and vyāghrī (79).[40]

An otherwise unknown disorder, called somavṛddhi, is referred to (15).

The amlavetasakalpa gives an account of the mythical origin of this plant (210cd–213) and its appearance (214–216ab); its juice is described as a powerful solvent (drāvaka; 229–233ab).

The style and terminology of the Bhūtiprakaraṇa of the *Gorakṣasaṃhitā* are distinctive, although in some respects reminiscent of the *Rasopaniṣad*.[41] Mercury is very often referred to as śarvaja[42] and sūtaka, gold as mātar[43] or mātṛkā,[44] copper as aravinda,[45] etc.

Compounds with the element cakra- are not rare.[46]

The terms sṛṣṭi and sṛṣṭitraya are frequently employed.[47] A large number of technical terms are not explained.[48] The same applies to the preparation of various substances employed in alchemical operations, for example: jyotistaila,[49] rāgasneha,[50] raktasneha,[51] and raktataila[52] (probably synonyms of rañjanataila).[53] Sneha is used in the sense of taila[54] or vasā.[55]

Some mūṣās referred to are agnimūṣā (5.146; 6.575), dharāmūṣā (7.139), and dīrghamūṣā (4.52; 5.135).

Some noteworthy names of plants are ambujaśūka (= jalaśūka; 2.51), amlavallī (2.83; 6.334), candravallī (2.96), cirpotikā (5.123), codyavṛkṣa (8.85), gandhā (2.94), jalaśūka (6.451 and 467), lelītaka (2.52; 6.385 and 472), māṭhara (6.214, 314, 320, 395, 453, 467, 544), rājārka (8.213), rakṣura (2.51), rakṣuraka (2.72), raktagocandanā (6.491), raktāpāmārga (6.340 and 492; 7.189), śrīhastinī (4.72), tirakṣā (6.489), and vṛṣodara (9.123).

The author

The author mentions his name, Gorakṣanātha, at the end of the treatise, adding that he wrote it[56] for the benefit of a king called Siṃha (9.135–136).[57]

Works, attributed to Gorakṣa(nātha), are, apart from the *Gorakṣasaṃhitā*, the *Bandhasarvasva*,[58] a *Kāmaśāstra*,[59] and the *Raseśvarasiddhānta*.[60] Gorakṣa(nātha) is moreover credited with a large number of non-medical works.[61]

The *Gorakṣasaṃhitā* is not quoted as such in medical treatises,[62] but citations from the *Svacchandaśaktyavatāra*[63] and works with related titles may be from some version of the Bhūtiprakaraṇa.[64]

The *Svacchandāgama* is quoted in Ṭoḍara's *Āyurvedasaukhya*.[65] The *Svacchandaśaktyāgama* is quoted in Viṣṇudeva's *Rasarājalakṣmī*,[66] the *Rasaratnapradīpa*, the *Rasasindhu*, and Ṭoḍara's *Āyurvedasaukhya*.[67] The *Svacchandaśāktyāgama* is quoted in Acyuta's *Rasasaṃgrahasiddhānta* and the *Rasarājalakṣmī*. The *Śaktyavatāra* is quoted in one of the pariśiṣṭas of the *Ānandakanda*,[68] Gulrājśarmamiśra's commentary on the *Āyurvedaprakāśa*,[69] and the *Rasatattvavivecana*.

Gorakṣa is quoted or referred to on subjects connected with āyurveda or rasaśāstra in the *Bṛhadrasarājasundara*,[70] Cidghanāndanātha's *Satkarmasaṃgraha*,[71] the *Rasakāmadhenu*,[72] *Rasaratnadīpikā*,[73] *Rasaratnākara*,[74] Hazārīlāl Sukul's commentary on the *Rasaratnasamuccaya*,[75] Śivamiśra's *Vaidyaśāstraśivānubhava*, Ṭoḍara's *Āyurvedasaukhya*,[76] Trimalla's *Bṛhadyogataraṅgiṇī*[77] and *Yogataraṅgiṇī*,[78] and the *Vaidyacintāmaṇi*.[79]

Some formulae attributed to Gorakṣanātha are candreśvarī guṭikā[80] and gorakṣavaṭī.[81]

Gorakṣa(nātha) is the most famous of the nine Nāthasiddhas.[82] Gorakṣa is mentioned as a Rasasiddha in the *Rasataraṅgiṇī* and *Rasendrasambhava*, as a Mahāsiddha in the *Haṭhayogapradīpikā*,[83] and as a Nātha in the *Ānandakanda*.

Date

The Bhūtiprakaraṇa of the *Gorakṣasaṃhitā* gives the impression of being an early work on rasaśāstra: the terms dhātu and upadhātu are not yet used; zinc is not described; the essence (sattva) of rasaka (i.e., zinc), although known (6.260, 262), is not characterized as a metallic substance.

The Kādiprakaraṇa of the *Gorakṣasaṃhitā* is related to the *Kubjikāmatatantra*, the oldest MS of which dates from the eleventh century.

The *Gorakṣasaṃhitā*, its Bhūtiprakaraṇa included, may therefore date from about the same period, but a later date cannot be excluded with any certainty.[84]

The period in which Gorakṣa lived is a disputed issue;[85] dates mentioned in the literature are: middle of the ninth century,[86] ninth or tenth century,[87] between the ninth and twelfth centuries,[88] tenth century,[89] eleventh century,[90] not later than A.D.1200, probably early in the eleventh century,[91] earlier than the last quarter of the thirteenth century,[92] thirteenth century,[93] and end fourteenth century.[94]

Chapter 4
Kākacaṇḍeśvarīmatatantra to *Rasahṛdayatantra*

The *Kākacaṇḍeśvarīmatatantra*

The *Kākacaṇḍeśvarīmatatantra*,[1] written in the form of a conversation between Śiva and Kākacaṇḍī,[2] deals with many subjects that belong to rasaśāstra. The work opens with a scene on the Kailāsa, where Śiva and his spouse are surrounded by a group of Yoginīs who are praising Śiva. Yoginīs mentioned by name are Krandanandī, Mahākālī, Bhṛṅgacaṇḍī, Vināyakī, Kapālī, Kālarātrī, Kālacandrā, Kalāmbikā, Karālī, Kālakarṇī, and Kākacaṇḍeśvarī. Kākacaṇḍī, also called Kākacāmuṇḍā, asks Śiva for instruction on alchemical subjects (2.3: dhātuvāda and rasāyana). Śiva complies with her request and expounds the science.[3]

The text describes[4] some saṃskāras of mercury,[5] the making of artificial gold and silver,[6] abhrakadruti,[7] the making of artificial gems (ratnakartṛtva; 2.4), etc. Some types of mūṣā,[8] etc.,[9] are referred to.[10]

The contents and the extent of the work vary in the MSS. A *(Mahā)rasāyanavidhi*[11] forms part of some versions. One MS contains a number of kalpas and rasayogas.[12]

It may be that the *Kākacaṇḍīśvarakalpatantra* is related to the *Kākacaṇḍeśvarīmatatantra*.[13]

The *Kākacaṇḍeśvarīmata* is referred to in the *Dattātreyatantra*,[14] the *Rasakakṣāpuṭa*, Nityanātha's *Rasaratnākara*, Rāmarāja's *Rasaratnapradīpa*, and Viṣṇudeva's *Rasarājalakṣmī* and *Rasasindhu*. The *Kākacaṇḍīśvarītantra* is quoted in the *Pāradasaṃhitā*.[15] The *Kākacaṇḍeśvara* is cited in Ṭoḍara's *Āyurvedasaukhya*[16] and is one of the sources of the *Bṛhadrasarājasundara*.[17]

Rāmarāja's acquaintance with the work shows that it antedates the period A.D. 1400–1550. Viṣṇudeva's references to it in his *Rasarājalakṣmī* and *Rasasindhu* establish that it is earlier than the first quarter of the fourteenth century.[18]

The *Kākacaṇḍīśvarakalpatantra*

The *Kākacaṇḍīśvarakalpatantra*,[19] a treatise in about 700 verses, contains fifty-one kalpas,[20] generally belonging to the realm of rasaśāstra, as appears from the ingredients of the prescriptions, the effects of their administration, and the terminology used. Each kalpa consists of several prescriptions, usually with a particular plant as their main ingredient. The formulae serve to cure diseases, have a rasāyana or vājīkaraṇa character, or aim at alchemical purposes (deha- and lohasiddhi). Mantras and Tantric elements are frequent.

The plants and some other substances,[21] after which the kalpas are named, are: aparājitā, uccaṭā, nāgadamanī, vajravallī, vajradantī, hastikarṇī, mahānīlī, śailodaka, śvetapunarnavā, raktapalāśa, brahma(vṛkṣa), śvetapalāśa, kṛṣṇaharidrā, kaṭurohiṇī, aśvagandhā, aṅkola, lakṣmaṇā, īśvarī, śālmalī, kākajaṅghā, kṣiprā, karañja, nirguṇḍī, indravāruṇī, bhṛṅgarāja, triphalā, udaka, musalī, muṇḍī, citraka, maṇḍūka, śrīphala (= bilva), āmalakī, śvetaguñjā, maṇḍūkabrāhmī, vandā, vākucī (= somarājī), rudantī, kaṭutumbī, iliyālepa, nimba, tṛṇajyotis, śvetārka, bhūkadamba, gandhaka, devadālī, eraṇḍa, mayūraśikhā, brahmadaṇḍī, and sahadevī.[22]

The only authority referred to is Nāgārjuna, to whom one of the prescriptions of the iliyālepakalpa is attributed.

The *Kākacaṇḍīśvarakalpatantra* is composed in the form of a conversation between Śiva and Pārvatī.[23] It is not clear whether it forms part of the *Kākacaṇḍeśvarīmatatantra*.[24]

Kākacaṇḍīśvara is mentioned as a Rasasiddha in Caturbhuja's commentary on the *Rasahṛdaya* (1.7), the *Pāradasaṃhitā* (1.99), the *Rasaratnasamuccaya* (1.6), the *Rasataraṅgiṇī* (1.29–32), and the *Rasendrasambhava* (introductory verses). He is a Mahāsiddha in Svātmārāma's *Haṭhayogapradīpikā* (1.7).

Kākacaṇḍeśvara is quoted in the *Pāradasaṃhitā*.[25] Kākacaṇḍīśvara is quoted[26] in the *Pīyūṣaratnamahodadhi* of Akulendranātha[27] and the *Rasarāja* of Viṣṇudeva.[28]

Several verses of the *Kākacaṇḍīśvarakalpatantra* recur in the kalpa section of the *Rasārṇavakalpa* of the *Rudrayāmala*.

The date of the work is uncertain.

Special features[29]

The uccaṭākalpa describes uccaṭā (2–3), which is also called vijayā (15), and mentions locations where this plant is found: the mountain Candrakānta, Hemapuṣṭa, the mountain Jālandhara,[30] Kuberanagara,[31] the mountain Naranārāyaṇa, and Śaṅkhatīrtha[32] (13–14). The vajravallīkalpa mentions that vajravallī cures the variety of udara that is called maṇḍūkākṛti. The śailodakakalpa[33] describes four varieties of śailodaka, which acts as a powerful rasāyana and turns base metals into gold. This type of action, called vedha, is obtained within specified periods of time, dependent on the location of the practitioner. Many geographical names are found in this kalpa:[34] Aghora, Āṅgirasakuṇḍa, Bhadrānta, Bhūśaila, Brahmagiri,[35] Durgadeśa, Gokarṇa,[36] Kalāgiri, Kalindanadī,[37] Kiṣkindhāparvata,[38] Mālyakarṇa, Mānavarta, Nṛsiṃhanagara, Pampā,[39] Siṃhācala,[40] Siṃhadvīpa,[41] Śrīśaila,[42] Tāreśvara, Tilodaka,[43] Vedaparvata, Vilānta, Vindhya, Vyāghrapāda.[44]

Śailodaka owes its origin to the drops of sweat that fell from Viṣṇu's body when he, in his boar incarnation, raised the earth out of the waters.

The aṅkolakalpa describes four varieties of this plant: white, ruddy (aruṇa), yellowish (harit), and dark (kṛṣṇa). The śālmalīkalpa mentions four varieties of śālmalī: white, ruddy (aruṇa), yellowish (harit), and yellow (pīta). The plant called kṣiprā is elaborately characterized. The ratios of the ingredients in triphalā are: three niṣkas of harītakī,[45] six niṣkas of vibhītaka, and twelve niṣkas of āmalakī.[46]

The udakalpa gives rules for the amount of water that should be drunk during the

various parts of day and night. The musalīkalpa gives a series of synonyms of this plant. Three varieties of muṇḍī are mentioned, white, red and dark, and two varieties of citraka, called sūcīpattramukha and maṇḍalapattraka. The maṇḍūkakalpa describes the properties of a gem-like substance in the head of a large frog living in particular places.[47]

The vandākalpa describes the properties of this plant, which depend on the kind of tree on which it grows.[48] Rudantī, said to grow in mountainous regions like the Himālaya, Kailāsa, Mandara, Vindhya, Śrīśaila, Hemakūṭa[49] and Pārijāta, is described; four varieties, white, red, yellow and dark, are distinguished. The small tree called iliyālepa or kaṭveraṇḍa[50] is characterized. Four varieties of eraṇḍa are mentioned: red, yellow, dark and white. Many synonyms of mayūraśikhā are enumerated. Brahmadaṇḍī is of two varieties, white and dark.

The *Kūpīpakvarasanirmāṇavijñāna*

The *Kūpīpakvarasanirmāṇavijñāna* by Hariśaraṇānanda Vaidya[51] is an iatrochemical treatise in Hindī and Sanskrit.[52]

This work is of interest on account of its sources, some of which are less well known.

The sources quoted are:[53] *Agastasampradāyagrantha* (161), *Agastyaproktagrantha* (178), *Āyurvedaprakāśa*, *Basavarājīya*, *Bhaiṣajyaratnāvalī*, *Bṛhadyogataraṅgiṇī*, *Cikitsākramakalpavallī* (267–268; 318). *Cikitsāratnābharaṇa* (182), *Devīyāmala* (16), *Dharaṇīdharasaṃhitā* (3, 4–5, 6, 14, 80, 95), *Laghuvaidyacintāmaṇi* (181, 292, 376–377), *Nighaṇṭuratnākara*, *Nūtanakalpasaṃgraha* (169, 211–212), *Nūtanavidhi* (297), *Rasacaṇḍāṃśu* (181, 184, 238, 273–274, 351), *Rasacintāmaṇi* (207, 246, 302, 326, 327–328, 369, 372–373), *Rasacūḍāmaṇi* (370, 371), *Rasadarpaṇa* (110, 129), *Rasādhyāya* (76, 80), *Rasadīpikā* (180, 219–220, 239, 260, 288), *Rasahṛdaya*, *Rasahṛdayaṭīkā*, *Rasajñāna* (103–104), *Rasakāmadhenu*, *Rasakaṅkālīya* (185), *Rasakaumudī*, *Rasakovida* (199), *Rasālaṃkāra* (222–223), *Rasamañjarī*, *Rasamārtaṇḍa* (109), *Rasapaddhati*, *Rasapaddhatiṭīkā*, *Rasapradīpa* (220–221), *Rasaprakāśasudhākara*, *Rasarājaśaṃkara* (195–196, 231, 252, 260–261, 277, 284–285, 326, 366–367), *Rasarājaśiromaṇi* (258), *Rasarājasundara* (159, 201, 242, 272–273, 306, 308, 311), *Rasaratnākara*, *Rasaratnamaṇimālā* (183, 283, 315–316, 335), *Rasaratnapradīpikā* (116, 156), *Rasaratnasamuccaya*, *Rasārṇava*, *Rasasāgara* (228–229), *Rasasaṃgrahasiddhānta* (292–293), *Rasasāra*, *Rasasāroddhārapaddhati* (93), *Rasāvatāra* (190, 233, 234, 377–378), *Rasāvatāra dvitīya* (170, 202, 202–203, 203, 258, 286, 345, 352, 360), *Rasāyanasaṃgraha* (174, 206, 207–208, 208–209, 210, 216, 221, 225–226, 226–227, 231–232, 236, 249–250, 269, 274–275, 275–276, 287, 289–290, 291, 312, 313, 328–329, 333–334, 364), *Rasāyanasāra*, *Rasendracintāmaṇi*, *Rasendracūḍāmaṇi*, *Rasendrakalpadruma* (77, 155, 209, 262–263, 324, 348), *Rasendramaṅgala* (44, 45, 78, 81, 84), *Rasendrasārasaṃgraha*, *Ratnākarauṣadhayoga* (160, 165, 174–175, 212–213, 225, 235–236, 281, 282, 288–289, 298–299, 301, 319, 336, 340, 341, 349, 365, 365–366), *Rudrayāmala* (101–102), *Śaivālabhakṣyamata* (48), *Śārṅgadharasaṃhitā*, *Siddhabhaiṣajyamaṇimālā*, *Siddhasampradāyagrantha* (239–240), *Ṭoḍarānanda*, *Vaidyacintāmaṇi* (157, 158, 176–177, 179–180, 183, 191, 218–219, 227, 233, 236–237, 237–238, 240–241, 241, 247, 249, 251, 254, 267, 271–272, 304–305, 305, 310, 324–325, 336–337), *Vasāmṛta* (263–264), *Vyāsasampradāyagrantha* (194, 205, 254, 255, 256), *Yogamahārṇava* (164, 215–216, 315, 322, 339),[54] and *Yogaratnākara*.

One of the formulae was devised by the author (svanirmita; 363).

The *Pāradasaṃhitā*

The *Pāradasaṃhitā*, compiled by Bābū Nirañjanaprasāda Gupta,[55] is a very extensive treatise on alchemy and iatrochemistry in sixty chapters. A very large part of the work is written in Hindī, but it also contains very numerous passages in Sanskrit, quoted from diverse sources, both ancient and modern.

Works and authorities on which the *Pāradasaṃhitā* is based, according to information provided by the author himself,[56] are: *Abhidhānakāmadhenu*, *Ajīrṇamañjarī*, *Bhāvaprakāśa*, *Devīyāmala*, *Dharaṇīdharasaṃhitā*, *Dhāturatnamālā*, *Gandhakakalpa*, Gokarṇa, Kākacaṇḍīśvara, *Kalpasāra*, *Kṣīrasindhu*, *Lohapaddhati*, Nāgārjuna, *Nighaṇṭurāja*, *Purandararahasya*,[57] *Rasacintāmaṇi*, *Rasadarpaṇa*, *Rasahṛdaya*, *Rasakāmadhenu*, *Rasālaṃkāra*, *Rasamañjarī*, *Rasamārtaṇḍa*, *Rasāmṛta*, *Rasapaddhati*, *Rasapārijāta*, *Rasaprakāśa*, *Rasaprakāśasudhākara*, *Rasarahasya*, *Rasarājahaṃsa*, *Rasarājalakṣmī*, *Rasarājapaddhati*, *Rasarājaśaṃkara*, *Rasaratnadīpikā*, *Rasaratnākara*, *Rasaratnapradīpa*, *Rasaratnasamuccaya*, *Rasārṇava*, *Rasasaṃketakalikā*, *Rasasāra*, *Rasasāroddhārapaddhati*, *Rasasindhu*, *Rasavāgbhaṭa*, *Rasāvatāra*, *Rasāyanasārasaṃgraha*, *Rasendracintāmaṇi*, *Rasendracūḍāmaṇi*, *Rasendrakalpadruma*, *Śārṅgadhara*, *Ṭoḍarānanda*, *Vaidyabhāskarodaya*, *Vaidyakalpadruma*, and *Yogataraṅgiṇī*.

Sources of quotations are for the major part indicated by means of abbreviations which are not listed and elucidated; occasionally, the name of the source is quoted in full.

Works and authorities quoted in the *Pāradasaṃhitā* are:[58] *Anupānataraṅgiṇī* (109),[59] *Arkaprakāśa* (47; 251), *Auṣadhikalpalatā* (147), *Āyurvedavijñāna* (233), *Bhaiṣajyaratnāvalī* (19), *Bhāvaprakāśa* (24), *Bṛhadyogataraṅgiṇī* (11), *Dhanvantarisaṃhitā* (111), *Dharaṇīdharasaṃhitā* (1),[60] *Dhāturatnamālā* (360), *Indrajāla* (348, 349), *Kākacaṇḍeśvara* (143), *Kākacaṇḍīśvarītantra* (257), *Kāmaratna* (26), Nāgārjuna (301, 349), *Nighaṇṭuratnākara* (64), *Rasadarpaṇa* (155), *Rasahṛdaya* (74), *Rasakāmadhenu* (345), *Rasamānasa* (58), *Rasamañjarī* (1), *Rasapaddhati* (131), *Rasapārijāta* (108), *Rasaprakāśasudhākara* (75), *Rasarājahaṃsa* (167), *Rasarājalakṣmī* (107), *Rasarājapaddhati* (1), *Rasarājaśaṃkara* (60), *Rasarājasundara* (490–491), *Rasaratnasamuccaya* (1), *Rasārṇava* (23), *Rasasāgara* (28),[61] *Rasasāra* (66), *Rasasārapaddhati* (244), *Rasasāroddhārapaddhati* (3),[62] *Rasāyanasārasaṃgraha* (5), *Rasendracintāmaṇi* (18), *Rasendrakalpadruma* (5), *Rasendrasārasaṃgraha* (10), *Raseśvaradarśana* (224), *Śabdakalpadruma* (163), *Śārṅgadhara* (110), *Siddhalakṣmīśvaratantra* (129), *Ṭoḍarānanda* (11), Vāgbhaṭa (238), *Vaidyabhāskarodaya* (360), *Vaidyādarśa* (3),[63] *Vaidyakalpadruma* (233), *Vaidyarahasya* (340), *Vājīkaraṇakalpadruma* (263), *Yogacintāmaṇi* (233), *Yogaratnākara* (10), *Yogasāgara* (362), *Yogasāra*[64] (154), and *Yogataraṅgiṇī* (9).

Some works in Hindī[65] and Urdū,[66] as well as a number of treatises in Persian, are quoted.[67]

Nirañjana and his *Pāradasaṃhitā* are quoted in Hazārīlāl Sukul's commentary on the *Rasaratnasamuccaya* and in the *Rasatattvavivecana*; the *Pāradasaṃhitā* and some of the works on which it is based are cited in the *Āyurvedīya Khanijavijñāna*. The *Pāradasaṃhitā* was one of the sources of the *Rasavidyāmahārṇava*.

The *Pāradasaṃhitā* (1.96–106) reproduces the list of Rasasiddhas, found in the *Rasaratnasamuccaya*, but adds the following names to it: Āgama, Bālaki,[68] Bali, Bāṇāsura, Bindunātha,[69] Borācolī,[70] Carpaṭa, Indradhūma, Kāmāri, Kaṇṭhaḍī, Kapila, Kāverī, Koraṇḍaka, Nirañjana,[71] Nityanātha, Prabhudeva,[72] Pūjyapāda, Ratnaghoṣa, Ratnākara, Siddhabuddha, Siddhapāda,[73] Subuddhi, Susenaka, Ṭiṇṭinī,[74] Vallabha, Vyālācārya,[75] and Yajanāman.

The author
The author, youngest son of Rāyabadrīprasāda, an Agravāla vaiśya, a lawyer (vakīl) by profession, was born in 1865/66. Like his father, he became a lawyer in Alīgarh. His interest in alchemy induced him to study the literature on this science assiduously and to conduct experiments himself.[76]

Date
The *Pāradasaṃhitā* probably dates from the beginning of the twentieth century.[77]

The *Rasabhaiṣajyakalpanāvijñāna*

The *Rasabhaiṣajyakalpanāvijñāna* by Saṃtoṣ Kumār Śarmā "Khāṇḍal"[78] is an elaborate work in Hindī and Sanskrit, dealing with rasaśāstra and with the preparation of āyurvedic medicines.

Contents
Volume one (Rasaśāstra) discusses many subjects belonging to iatrochemistry; volume two (bhaiṣajyakalpanā) describes the preparation of various types of āyurvedic medicines and of some particular well-known formulae.

The Sanskrit passages consist of quotations from the following works and authors: Āḍhamalla, *Amarakośa*, *Ānandakanda*, Aruṇadatta, *Aṣṭāṅgahṛdayasaṃhitā*, *Aṣṭāṅgasaṃgraha*, *Ātreyasaṃhitā*, *Āyurvedaprakāśa*, *Āyurvedīyaparibhāṣā* by Gaṅgādhara, *Bhaiṣajyaratnāvalī*, *Bhāvaprakāśa*, the *Bodhinīṭīkā* (by Āśubodha and Nityabodha Senagupta) on the *Rasaratnasamuccaya*, *Cakradatta*, Cakrapāṇi's commentary on the *Carakasaṃhitā*, *Carakasaṃhitā*, Ḍalhaṇa's commentary on the *Suśrutasaṃhitā*, *Dhanvantarisaṃhitā*, *Dravyaguṇavijñāna* by Yādavjī (Trikamjī Ācārya), *Gadanigraha*, Halāyudha, *Kāśyapasaṃhitā*, Kullūka's commentary on the *Manusmṛti*, *Mahābhārata*, Nārāyaṇa, *Navaparibhāṣā* by Upendranāthadāsa, *Nighaṇṭuratnākara*, *Pāradasaṃhitā*, *Purandararahasya*, *Rājanighaṇṭu*, *Rasacintāmaṇi*, *Rasahṛdaya*, *Rasajalanidhi*, *Rasakāmadhenu*, *Rasapaddhati*, *Rasaprakāśasudhākara*, *Rasarājasundara*, *Rasaratnākara*, *Rasaratnasamuccaya*, *Rasārṇava*, *Rasasaṃketakalikā*, *Rasataraṅgiṇī* and its ṭīkā, *Rasendracintāmaṇi* and a commentary on this work by Maṇirāma Śarmā, *Rasendracūḍāmaṇi*, *Rasendrasārasaṃgraha*, *Śārṅgadharasaṃhitā*, *Siddhabheṣajamaṇimālā*, *Suśrutasaṃhitā*, *Vaidyakaparibhāṣāpradīpa* (by Govindasena), *Vaijayantīkośa*, *Yajurveda*, *Yogamahodadhi*,[79] *Yogaratnākara*, and *Yuktikalpataru*.

The *Rasādhyāya*

The *Rasādhyāya* by Kaṅkālayayogiśiṣya[80] is an alchemical treatise[81] in 481 verses, arranged in twenty-one chapters (adhikāra);[82] the text is accompanied by a Sanskrit commentary.

The *Rasādhyāya*[83] actually consists of a vārttika on the *Kaṅkālādhyāya* of Kaṅkāla (1).[84] The author declares that his work is based on the teachings of Kaṅkālayayogin, who was an expert with regard to rasa, guṭī and añjana (8–9).[85]

The introductory verses contain two maṅgalas, addressed to the arhants (i.e., the Tīrthaṅkaras) (1) and to Bhairava, Bhāratī (i.e., Pārvatī) and Vighneśa (i.e., Gaṇeśa) (10).

The subjects of the chapters[86] are: (1) the manufacture of śṛṅkhalārasa by subjecting mercury (rasa) to eighteen saṃskāras (12–223); (2) various rājis (224–242);[87] (3) khāparasattvapātana (the extraction of the essence of khāpara; 243–249);[88] (4) manaḥśilāsattvapātana (the extraction of the essence of manaḥśilā; 250–253); (5) ṣaḍlohadrutikaraṇa (druti of the six metals; 254–269); (6) ṣaḍlohamāraṇa (killing of the six metals; 270–275); (7) hīrakānnapathakaraṇa (the preparation of diamonds for jāraṇa; 276–297ab); (8) hīrakabhasmīkaraṇa (the preparation of the bhasman of diamonds; 297cd–320); (9) gandhakaśodhana (the purification of sulphur; 321–324); (10) gandhakapīṭhīnirmāṇa (the preparation of a powdered form of sulphur; 325–334); (11) gandhakatailanirmāṇa (the preparation of sulphur oil; 335–339); (12) hemakaraṇa (the making of gold; 340–357); (13) vārigandhakajahṛtipīṭhīnirmāṇa (the preparation of a liquefied form of sulphur; 358–364); (14) and (15) gandhakadrutipīṭhī (the making of gold by means of liquefied sulphur, called vārigandhaka or gandhakadruti; 365–374); (16) tālakaśodhana (the purification of tālaka; 375–383); (17) śuddhatālakakarman (the uses of purified tālaka; 384–403); (18) abhrakadruti (the liquefaction of mica; 404–426); (19) abhrakadrutikarman (the uses of liquefied mica; 427–438); (20) hemavajrabhasmabhūnāgasattvakarmanirūpaṇa (the preparation of a product suitable for deha- and lohasiddhi out of gold, vajrabhasman and the essence of bhūnāga; 439–458); (21) guṭikāñjanapāradādīnāṃ sevanavidhiḥ and bālavādinīguṭikānirmāṇa (the preparation of guṭikās, añjanas, etc.; 459–478).

An absolute condition for success in the practice of the art is continence and chastity (brahmacarya) and the adherence to dietary restrictions (haviṣyānnabhojana) on the part of both teacher and student (11).

Chapter one describes first the seven kañcukas[89] and five doṣas of mercury (sūta), which have to be removed by means of various purificatory processes. The names of the seven kañcukas (contaminants) are:[90] mṛnmaya, pāṣāṇakañcuka, jalajāta, kapāli, kālikā, śyāmā, and kāpālikā (14); kapāli and kālikā are tin-containing (vaṅgaja), śyāmā and kāpālikā lead-containing (nāgaja) contaminants (15). The five doṣas are maladoṣa,

vahnisaṃbhava, viṣadoṣa, darpa, and unmatta (17–18ab).

The seven kañcukas are dangerous impurities which may cause diseases; mṛṇmaya may lead to kuṣṭha, pāṣāṇasaṃbhava to jāḍya, vārija (= jalajāta) to vātastoma,[91] kapāli and kāpālikā to cilharī,[92] kālikā to gajacarman, dadru, pāṇḍuroga, moha, dubhita[93] and kāmalā, and śyāmā to śvetakuṣṭha. The five doṣas are thought to injure the tejas, to cause sattvaghāta, ghūrma,[94] aṅgasphuṭana, and unmattatā (18cd–22).

The remaining part of chapter one gives an account of eighteen saṃskāras. This series consists of pāṭasāraṇa,[95] mardana, śodhana, mūrchanotthāpana, rasapātana, rasotthāpana, svedana, niyāmana, nirodhana, mukhakaraṇa, jāraṇa, bandhana, sāraṇa, māraṇa, pratisāraṇa, krāmaṇa, vedha, and udghāṭana (26–30).[96]

The procedures for these saṃskāras are described, together with the effects obtained. Pāṭasāraṇa (31) removes impurities, in particular those associated with the presence of tin or lead in crude mercury. Mardana (32–33) makes impure mercury lose its blackness. The varieties of śodhana (34–42) make mercury free from the kañcukas and doṣas.[97] Mūrchanotthāpana (43–46) renders purified mercury tejasvin, pātana (47–57ab) abolishes its subtle defects (sūkṣmadoṣa); utthāpana (57cd–69) makes it pervasive (vyāpaka) and clear (svaccha). Svedana (70–82) activates the mukhavāñchā of mercury, i.e., its ability to digest other substances, and increases its heat-resistancy; the same properties are further stimulated by niyāmana (38–89) and nirodhana (90–92).

Mukhakaraṇa or mukhaprasāraṇa (93–110), a process brought about by means of a group of niyāmika or yamika drugs, makes mercury lose its wings (pakṣacchinna)[98] and fit to assimilate other substances. Two series of these herbs and other substances are enumerated. The first series consists of amṛtā, araṇyatulasī, candana, cāṅgerī, girikarṇī, kṛṣṇā, kṣīriṇī, madhuka, matsyākṣī, meghanādā, mṛgabhojinī, punarnavā, ravimūlikā, śaṅkhinī, śarapuṅkhā, sārivā, sarpākṣī, snuhī, tiktā, trāyantī, vajrakañcukī, and vajravallī (93–96). The second series consists of adrikarṇikā, ākhuparṇikā, aruṣkara, bhṛṅgarāj, brahmadaṇḍī, brahmaghnī, ciñcika, citraka, dhattūra, the droppings of pigeons and kokilas, dvilatā, grīṣmasundara, guḍūcī, haṃsapādī, haridrā, harītakī, hastiśuṇḍī, indravāruṇī, hiṅgumākṣika (an inorganic substance), kākajaṅghā, kākamācī, kañcukī, khāpara (an inorganic substance), kṣīriṇī, kumbhī, kutumbaka, mācikā, maṇḍūkaparṇī, mahārāṣṭrī, matsyākṣī, mṛgadūrvā, muṇḍī, mūrvā, muśalī, nāraṅga, pāṭhālī, puṅkhā, raktacitraka, saindhava, śaṅkhapuṣpikā, sarpākṣī, śatāvarī, śigru, śikhiśikhā, somavallī, sūraṇa, svayaṃbhuj, śvetārka, śvetavarṣābhū, tilaparṇikā, utpala, vajrakanda, vandhyā, varṣābhū, viṣṇukrāntā, vṛścikālī, vyāghrapādī, and yakṣalocanā (97–106).

Jāraṇa (111–195)[99] makes mercury lose its capalatva (fickleness) and renders it dīpta; several methods are described for the saṃskāra called jāraṇa; one of these renders mercury fit to digest abhraka (gaganagrāsapārada); purified abhraka and mercury are mixed and made into a compound substance; similar processes are described which make mercury digest iron, sulphur, manaḥśilāsattva, and khāparasattva; the way of preparing vaḍavānalaviḍa also forms part of the verses on jāraṇa; this substance, when rubbed with mercury, increases the latter's ability to digest abhraka; purified abhraka and mercury are mixed and made into a compound substance; similar processes are described which make mercury digest gold, iron, etc.; the section on jāraṇa ends with

the characterization of three varieties of this process, called garbhapara-, piṇḍa-, and pariṇāmajāraṇa. The saṃskāra called bandhana (196–206)[100] results in siddharasa, a substance with wonderful properties, suitable to achieve deha- and lohavedha. Sāraṇa (207–210) results in changing the baddharasa into a raktakhoṭa. Māraṇa (211–214) consists in subjecting the raktakhoṭa to intense heat, pratisāraṇa (215) in pulverizing the substance obtained by heating, and krāmaṇa (215) in mixing the powder with mṛtanāga (killed lead) and mṛtakāñcana (killed gold). Vedha (217–218) endows mercury with the ability of transforming base metals into gold. Udghāṭana (219–233) produces a substance that cures all diseases. This final product is called śṛṅkhalārasa.

Chapter two describes the preparation of hemarāji, (ayaḥ)prakāśarāji, ghoṣarāji (= kāṃsyarāji), mākṣikarāji, and nāgarāji (224–242). The six lohas of chapters five and six are heman (gold), kāntaloha (iron), rūpya (silver), vaṅga (tin), nāga (lead) and tāmra (copper) (260–261). The māraṇa of these six lohas is achieved by means of nāga, hiṅgula, tilamākṣīka,[101] haritāla, manaḥśilā and śuddhagandhaka respectively (270–271). The model of lohamāraṇa is tāmramāraṇa (272–275). Gandhakataila (335–339) is necessary for the making of artificial gold (hemakaraṇa, 340–357). The same applies to vārigandhakajahṛtipīṭhī or gandhakadrutipīṭhī (358–374). Tālaka, also called godantī (375), is, after being purified, described as a medicinal substance which cures the eighteen varieties of kuṣṭha and rejuvenates the whole body (402–403). Abhrakadruti is employed for the purposes of deha- and lohasiddhi (427–438). Effects of a rasāyana type are attributed to the bhasman of gold, the bhasman of diamonds, and the essence of bhūnāgas (439–458). The rules to be observed in order to profit from the thrice eighty-four guṭikās, añjanas and mercurial preparations devised by Kaṅkālayayogin are expounded (459–464). Finally, the preparation of bālavādinīguṭikā is described (465–478), a pill that endows a person, if used in the prescribed way, with the knowledge of the three divisions of time.

The *Rasādhyāya* contains a large number of unusual technical terms and names of substances, the meaning of which is not always clear. Many of these terms betray the influence of the author's mother tongue, which was a form of Hindī.

Noteworthy names of plants are: āsandhi (39, commentary), bhūmimardakī (292), bīyā (37), brahmaghnī (102), dūdhilī (43),[102] hemapadī (144), hemavallī (328), jārī (144), jhījaraṭa (87), kudhya (40), mahoḍāka (197), mukhā ulī (317), nāhī (40), naṭī (144), pātālagurutman (371),[103] pāṭhālī (99), svayaṃbhuj (103), vajrakañcukī (93), vyāghramadanakodrava (404), and vyāghrapadī (103).

Noteworthy technical terms and names of inorganic substances are: agniṣṭa (314; 322),[104] bavvera (147), bundha (52),[105] bundhaka (52; 54), cātikā (385),[106] chāṇṭayati (300),[107] citrakūṭa(mṛttikā) (226), dāghīcheda (166), dāthara (321),[108] ḍhaṅkaṇī (198; 228),[109] galadghaṭī (196),[110] ghūrmāra (382),[111] iṅgāla (418; 433),[112] jarakīśa (439), jīkaka (32; 162),[113] kacūla (245),[114] kaṇayarī (250),[115] karṣa (323),[116] kulhaḍī (70; 71; 72),[117] kumpa (90; 389),[118] kuṇḍalikā (323),[119] mecaka (420),[120] nisāhā (280), nesahiṅgu (283; 285), pallikāpīṭhī (410),[121] pañcamṛttikā (162),[122] phāḍi (229; 230),[123] phullatūrikā (61),[124] pīṭhī (52; 326; 329; 395),[125] rāba (305),[126] rantī (325; 326), sauvarṇaka (314),[127] thauhara (299),[128] thūthā (148),[129] vaḍhavāika (280), and veḍhaṇī (217).

The *Rasādhyāya* is quoted in Gulrājśarmamiśra's *Viśikhānupraveśavijñāna* and Hariśaraṇānanda's *Kūpīpakvarasanirmāṇavijñāna*.

A Hindī adaptation of the treatise, by a courtier of Nasīr-ud-Dīn Khaljī of Mālwā, is said to date from the beginning of the sixteenth century.[130] This *Nāsīrasāhī Kaṅkāligrantha*,[131] written in an odd mixture of Sanskrit and Hindī, quotes Bhāskara, the *Bhāvaprakāśa*, and the *Rasapradīpa*.[132] The quotation from the *Bhāvaprakāśa*, if genuine, would indicate that it is later than the sixteenth century.[133]

The author

Information on the author of the *Rasādhyāya* is found at the end of the work. The author calls himself Campaka.[134] This Campaka and his brother, Manāgajākaukila, were the sons of Bhādiga,[135] who was a son of Mahipa[136] and a grandson of Mūñjāladeva Rāula of Yādavavaṃśa.

The *Rasādhyāya* is sometimes ascribed to a Merutuṅga, considered to be the well-known Jain author of the *Prabandhacintāmaṇi*.[137] One of the MSS credits Kaṅkālayogin with the text and Puruṣottama Sūri with the commentary.[138]

The commentary on the *Rasādhyāya* is sometimes supposed to have been written by Campaka himself,[139] a view that is due to the incomplete MSS on which the edition is based.[140] The Berlin MS of the *Rasādhyāya* and its commentary[141] mentions in its complete colophons Campaka as the author of the *Rasādhyāya*, and Merutuṅga, pupil of Mahendraprabha Sūri of the Añcalagaccha,[142] as the author of the commentary (vṛtti). A *Rasāyanaprakaraṇa* by Merutuṅga, composed in A.D. 1387,[143] may be identical with the vṛtti on the *Rasādhyāya*.[144]

Date

The dates of Kaṅkālayayogin and Campaka are unknown.[145] The Berlin MS of the *Rasādhyāya* with Merutuṅga's commentary was completed in Śrīpattana in A.D. 1386/87,[146] which would imply that this Merutuṅga was not the author of the *Prabandhacintāmaṇi*, a work that was completed in A.D. 1306.[147] The Merutuṅga of the Añcalagaccha, who studied under Mahendraprabha Sūri, became a Sūri in A.D. 1472 and lived till 1527,[148] which conflicts with the date of the Berlin MS of the vṛtti.[149]

The *Rasahṛdayatantra*

The *Rasahṛdayatantra* of Govinda[150] is an acclaimed treatise, exclusively dealing with the processing of mercury for the purposes of loha- and dehasiddhi.

Contents[151]

The *Rasahṛdaya* consists of 506 verses in āryā metre, arranged in nineteen chapters (avabodha).[152] The titles of the chapters are: (1) rasapraśaṃsā (34 verses); (2) rasaśodhana (13 verses); (3) abhrakacāraṇa (26 verses); (4) abhrakasattvacāraṇā (26 verses); (5) garbhadruti (58 verses); (6) bījādijāraṇa (19 verses); (7) biḍa (9 verses); (8) rasarañjana (19 verses); (9) bījavidhāna (16 verses); (10) sattvapātana (17 verses); (11) bījanirvāhaṇa (13 verses); (12) dvandvamelana (12 verses); (13)

saṃkarabījavidhāna (8 verses); (14) saṃkarabījajāraṇa (18 verses); (15) bāhyadruti (16 verses); (16) sāraṇa (36 verses); (17) krāmaṇa (8 verses); (18) vedha (76 verses); (19) bhakṣaṇa (80 verses).

Chapter one[153] is in praise of mercury, which abolishes afflictions when mūrchita, leads to final emancipation (mukti) when subjected to bandha, and bestows immortality when mṛta (3); it even cures all diseases which are regarded as incurable (4). Those regularly using mercurial preparations acquire an immortal body (sthiradeha), the eight siddhis and the brahmapada (15).[154] The whole chapter consists of verses extolling the wonderful effects of mercury. The names and mythical origin of mercury are not described.

Chapter two lists the eighteen saṃskāras: svedana, mardana, mūrchā, utthāpana, pātana, nirodha, niyama, dīpana, gaganagrāsapramāṇa, cāraṇa, garbhadruti, bāhyadruti, jāraṇa, rāga, sāraṇa, krāmaṇa, vedha, and bhakṣaṇa (1–2).[155] One method for each of the first eight saṃskāras is described (3–11). Three naisargikadoṣas are mentioned: mala, śikhin (= agni) and viṣa, leading to mūrchā, dāha and death respectively (5). The kañcukas are not enumerated and only referred to as nāga- and vaṅgadoṣa in the verse on pātana (8); a ṣaṇḍhadoṣa is mentioned in the verse on śodhana (9). The term sṛṣṭi is explained by the commentator as consisting of the urine, semen and blood of cattle, sheep, goats or human beings (9).[156] Subjection to the eight saṃskāras described makes mercury suitable to the next processes (10).

Chapter three is about the process that prepares abhraka (mica) for its combination with mercury (abhrakacāraṇā); this amalgamation of mercury and mica is a prerequisite for the process called pakṣaccheda (3). The preparation of crude mica is achieved by a process called jāraṇa (4), which makes it pure and devoid of its lustre (niścandrika; 5).[157] Two varieties of cāraṇā are described: nirmukha- and samukhacāraṇā (5–7 and 12); samukhacāraṇā is one of the steps leading to the making of artificial gold and silver. Three other varieties, characterized by the relative quantities of mercury and mica in the mixture, are called grāsa, piṣṭī and garbha (13). A number of methods for the cāraṇā of mercury and mica are given (16–19). Verse 20 introduces sulphur (gandhaka), which is necessary for giving colour (rāgadāyin) to mercury, for the jāraṇa of a bīja, the clipping of the wings (pakṣaccheda), and the bandha of mercury. A mixture of mica and sulphur, added to mercury, results in pakṣaccheda (21–23). The addition of hemapiṣṭi (= hemabhasman) is described in the next verses (24–25).

Chapter four is concerned with the extraction of the essence (sattvacāraṇā) of mica (abhraka). Four varieties of mica are mentioned: black, red and yellow in colour and one called vajrin (1);[158] the extraction of the sattva of abhraka is necessary because mercury does not amalgamate with mica itself (2); the essence of mica is the best substance to achieve the pakṣaccheda of mercury (3), a process that has to precede its bandha (4). The characteristics of pakṣacchinna mercury are described (5). The variety of abhraka called vajrin is the only one suitable to the extraction of the essence (sattva) (6–7). The products called kāca, kiṭṭa and pattrarajas, resulting from sattvapātana of the unsuitable varieties of abhraka, are useless in rasāyana preparations (8). Some methods of preparing abhrakasattva (9–11) and the characteristics of this product are described (12).[159] Methods to mix the sattva with mercury follow (13–20). Mixtures of

abhrasattva and other substances (copper, iron, etc.), which are employed in making mercury accept the sattva, are called śulbābhra, etc. (21).[160] Finally, the way to colour abhrakasattva and the cāraṇā of this product are described (23–24).

Chapter five describes garbhadruti (1–35) and bāhyadruti (36–58), processes which result in the liquefaction (druti) of the grāsa, i.e., the substances added to mercury. The substances necessary to achieve this liquefaction are called bīja. Chapter five opens with methods to prepare various bījas (4–23). Mākṣikasattva, for example, is necessary for the druti of gold and silver (7). Next, garbhadruti itself is described (24–26) and the preparation of biḍas (catalytic agents) helpful in the druti of gold and vaikrānta (27–29), followed by verses on the quantities of grāsa that can be digested by mercury, dependent on various circumstances (30–32), and related topics (33–35). The next subject is bāhyadruti; several methods are described to achieve the liquefaction of various substances.

Chapter six continues the same subject: jāraṇa of the bījas by means of druti. The characteristics of a successful jāraṇa are described (7) and the measures to be adopted when the jāraṇa is incomplete (8–10). Some defintions follow: the products called daṇḍadhārin, pāyasākāra, jalaukākāra, aviplusa and chedin are described (11–12);[161] the characteristics of abhrajīrṇarasa are mentioned: dhūmra, ciṭiciṭiśabda, maṇḍūkagati, sakampa, niṣkampa (14).[162] The kacchapayantra is described and jāraṇa by means of this apparatus (16–19).[163]

Chapter seven is about biḍas, which are helpful in the process of jāraṇa of the bījas, especially of hemabīja (1–3), and about the preparation and use of kṣāra for the same purpose (4–9). The trees and plants suitable for the preparation of a kṣāra are enumerated: kadalī, palāśa, tila, nicula, kanaka, suradālī, vāstuka and eraṇḍa (4).

Chapter eight is concerned with the colouring of the product resulting from jāraṇa of a grāsa. Jāraṇa of abhraka gives the product the colour of the variety of abhraka that was used (1–2). Several other methods are described. The saṃskāra by means of which colouring (rañjana or kṛṣṭi) is achieved is called sāraṇa. A coloured mercurial product is able to transmit its colour to various metals (18).

Chapter nine opens with the statement that mercury, even after colouring, is not yet suitable to the karman (of the alchemist, i.e., auri- and argentifaction); the addition of a bīja is necessary to achieve this aim (1). Two types of bīja are distinguished: yellow and white (1), employed in the making of gold and silver respectively. The substances which are of importance in preparing a bīja are enumerated; the eight rasas: vaikrānta, kānta, sasyaka, mākṣika, vimala, adri (= śilājatu), darada and rasaka (4);[164] the eight uparasas: gandhaka, gairika, (manaḥ)śilā, (harit)āla, kṣiti (= sphaṭikā), khecara (= kāsīsa), añjana and kaṅkuṣṭha (5); the two sāralohas: śikhin (= gold) and śaśin (= silver) (5); the six pūtilohas: tāmra, āra, tīkṣṇa, kānta, abhrasattva, loha (= muṇḍa), vaṅga and nāga; the six salts: sauvarcala, saindhava, cūlika, sāmudra, romaka and biḍa (7); the three alkalis (kṣāra): svarjī, ṭaṅkaṇa, and yavakṣāra (7); a group of śodhana and drāvaṇa plants: sūryāvarta, kadalī, vandhyā, kośātakī, suradālī, śigru, vajrakanda, nīrakaṇā (= jalappipalī) and kākamācī (8). The plants mentioned are employed in the purification of the rasas and uparasas, and in the extraction of their sattva (9); the remaining part of the chapter (10–16) is about the purification of several of the substances mentioned.

Chapter ten is concerned with the extraction of the essence (sattvapātana) of several substances. It is necessary to extract the sattvas of vaikrānta, kānta, sasyaka, mākṣika, etc., because these essences can be assimilated, in contrast with the substances themselves. Candrodaka (2) and śailodaka (3) are referred to. The sattvas are described, together with their uses.

Chapter eleven deals with the nirvāhaṇa of the bījas, i.e., their transfer to the mercurial preparation, resulting in its colouring. Śṛṅkhalābīja is described (6–7).

Chapter twelve gives an account of the methods employed to achieve a thorough mixing of the bīja and the mercurial product (dvandvamelana).

Chapter thirteen describes the preparation of a saṃkarabīja (mixed bīja) or mahābīja, several varieties of which are distinguished. Sixty-four of these are referred to.[165]

Chapter fourteen describes the digestion (jāraṇa) of these saṃkarabījas after adding them to the mercurial product. The māraṇa of mercury, leading to the product called khoṭa, is also dealt with.

Chapter fifteen is about bāhyadruti and garbhadruti, which serve to stabilize the product after jāraṇa; this stabilization is called bandha.

Chapter sixteen is about sāraṇa, a process which renders the product obtained by means of the preceding processes capable of pervading base metals added and thus transmuting them. Sāraṇa is achieved by means of sāraṇataila. The preparation of this oil is described, along with the instrument used, the sāraṇayantra (11–23).[166] Sāraṇa can also be carried out by means of the ḍamarukayantra (24–25). Pratisāraṇā and anusāraṇā are defined (30);[167] these varieties of sāraṇā increase the transmuting power (31–35).

Chapter seventeen gives an account of krāmaṇa, which results in the ingredients of the mixture pervading each other on an atomic level (1–2).

Chapter eighteen is about vedha, a process finally enabling the alchemist to transmute base metals into gold or silver (hemākṛṣṭi and tārākṛṣṭi).

Chapter nineteen describes the use of mercurial preparations for rasāyana purposes. The rules to be observed before the consumption of a mercurial product are given (2–15);[168] several mercurial products suitable to cure diseases, obtain longevity, or even render the body immortal are described (16–50). The mental state attained is described as rasānanda (49). The symptoms and treatment of the disorder called rasājīrṇa are dealt with (51–58).[169] Some verses extol the wonderful effects of mercurial rasāyanas, which make one equal to Viṣṇu and Rudra (64). The chapter ends with the recipes for amarasundarī guṭikā (65–66), mṛtasaṃjīvanī guṭikā (67–72), vajriṇī guṭikā (73–74), and khecaraguṭikā (75–76).

The treatise ends with information on the author.

Sources are not referred to.[170]

The *Rasahṛdaya* is quoted or referred to in the commentary on the *Aṣṭamahāmātrā*, Basava's *Śivatattvaratnākara*, the *Bhāvaprakāśa*,[171] Cūḍāmaṇimiśra's *Rasakāmadhenu*, the *Dharaṇīdharasaṃhitā*, Govindarāma Ṭhākura's *Rasasaṃgrahasiddhānta*, Gulrājśarmamiśra's commentary on the *Āyurvedaprakāśa*, Hariprapanna's *Rasayogasāgara*, Hariśaraṇānada's *Kūpīpakvarasanirmāṇavijñāna*, Hazārīlāl Sukul's commentary on the *Rasaratnasamuccaya*, Khare's commentary on the *Rasaratnasamu-*

ccaya, Mādhavācārya's *Sarvadarśanasaṃgraha*,[172] Nirañjanaprasāda Gupta's *Pāradasaṃhitā*, Nityanātha's *Rasaratnākara*, the *Rasadhātuprakāśa*, the *Rasatattvavivecana*, Rāmacandra's *Rasendracintāmaṇi*, Somadevaśarman's commentary on the *Āyurvedaprakāśa*, Vāgbhaṭa's *Rasaratnasamuccaya*,[173] Viṣṇudeva's *Rasarājalakṣmī*, and Yādavjī Trikamjī's *Rasāmṛta*. The *Rasahṛdaya* was one of the sources of the *Āyurvedaprakāśa*, *Rasaratnasamuccaya* and *Rasendrasambhava*. A *Rasahṛd* is mentioned in the *Vaidyaśāstrapravartakācāryanāmasamuccaya*.

The author of the *Rasahṛdaya* is quoted in Gulrājśarmamiśra's *Viśikhānupraveśavijñāna*[174] and Trimalla's *Bṛhadyogataraṅgiṇī*.[175] Bhagavadgovinda is mentioned as a source in Viṣṇudeva's *Rasarājalakṣmī*. Govinda is quoted in Gulrājśarmamiśra's commentary on the *Āyurvedaprakāśa*, Hazārīlāl Sukul's commentary on the *Rasaratnasamuccaya*, and Somadevaśarman's commentary on the *Āyurvedaprakāśa*. The author is referred to as Govinda in Khare's commentary on the *Rasaratnasamuccaya*, as (Bhagavad)govindapāda or -pādāḥ in the *Āyurvedaprakāśa*, Hazārīlāl Sukul's commentary on the *Rasaratnasamuccaya*, the *Rasendracintāmaṇi*, the bhasmapiṣṭiprakaraṇa of the *Rasoddhāratantra*, and Somadevaśarman's commentary on the *Āyurvedaprakāśa*, as Govindabhagavant in the *Rasendracūḍāmaṇi*, and as Govindabhagavatpāda in the commentary on the *Rasataraṅgiṇī* and in the *Sarvadarśanasaṃgraha*.

A Govinda, either the author of the *Rasahṛdaya* or the one who wrote the *Rasasāra*, is referred to as a source or quoted in Māṇikyadeva's *Rasaratnasamuccaya*, Rāmarāja's *Rasaratnapradīpa*, the *Rasakakṣāpuṭa*, and the *Rasakalpa*.

A Govinda, who cannot be but the author of the *Rasahṛdaya*, is mentioned in the *Rasasāra*.[176]

The *Rasaratnākara* (Vādikhaṇḍa), *Rasaratnasamuccaya* and *Rasataraṅgiṇī* mention Govinda as one of the Rasasiddhas.

The author[177]

The last verses of the *Rasahṛdaya* (19.78–80) contain some information on the author, who calls himself bhikṣu Govinda.[178] The author mentions as his patron king Madana,[179] an alchemist (rasācārya) himself, the lord of the Kirātas,[180] of Somavaṃśa[181] and Haihaya kula.[182] D.G. White is inclined to locate Govinda's Haihaya king Madana, lord of the Kirātas, at the eastern extremity (eastern Madhya Pradesh, Orissa) of the sphere of influence of the Kalachuri kings, who traced their lineage back through Haihaya and Yadu to the Moon and therefore considered themselves to belong to the Lunar dynasty (somavaṃśa).[183]

One of the MSS has an additional verse containing the names of Govinda's father, Maṅgalaviṣṇu, and grandfather, Sumanoviṣṇu.[184]

Bhikṣu Govinda is by some regarded as a Buddhist, by others as a Hindu.[185] The view that he was a Buddhist rests on very slender evidence, consisting of a reference to the Tathāgata in the additional verse of one of the MSS.[186] The references to Hinduism in the body of the text clearly indicate that Govinda was a Hindu by faith.[187]

Date

Tryambaka Kāle identified bhikṣu Govinda with the Govindabhagavatpādācārya who was the teacher of Śaṃkarācārya.[188] This identification was based on the resemblance, with regard to meaning, of an āryā of the *Rasahṛdaya* (1.30) and a verse in one of the works of Śaṃkara,[189] and on references to the author of the *Rasahṛdaya* as Govindabhagavatpādācārya in the *Sarvadarśanasaṃgraha*.[190] Kāle's hypothesis is rejected by part of the later authors on the subject,[191] because it would place the composition of the *Rasahṛdaya* in the last part of the eighth or the beginning of the ninth century, an age in which alchemy had not yet developed to the stage represented by the *Rasahṛdaya*.

Kāle also claimed that Govinda's patron, Madana, is identical with a king Kāmadeva, who is mentioned in the vaṃśāvalī of the Haihayakula;[192] this king is assigned to the eighth century, which would fit in with the view that the author of the *Rasahṛdaya* and Śaṃkara's guru are one and the same person.

Kāle's assumptions regarding the identities of Govinda and Madana are arbitrary and unconvincing. The *Rasahṛdayatantra* cannot possibly date from the late eighth or early ninth century on account of the much more developed state of rasaśāstra in this work, compared with what is found in the works of Vṛnda, Cakrapāṇidatta and Vaṅgasena. The similarities between the *Rasahṛdaya* on the one hand and the *Rasārṇava* and *Rasendracintāmaṇi* on the other suggest that these three works were composed in about the same period.[193] D.G. White is of the opinion that the tenth or eleventh century is a plausible date for Govinda's work, in the light of the dates of later treatises that refer back to it.[194]

The lower limit is provided by the quotations in the *Rasarājalakṣmī* (dating from the third quarter of the thirteenth century), *Rasendracūḍāmaṇi*, and *Sarvadarśanasaṃgraha* (dating from the second half of the fourteenth century).

A commentary on the *Rasahṛdayatantra*, called *Mugdhāvabodhinī*,[195] was written by Cathurbhujamiśra.[196]

Authorities and works quoted or referred to in this commentary are: Amara (1.14; 4.24; 11.8; 12.4; 19.23, 36, 61), *Anekārtha* (1.1 and 2), Bhagavadvacana (1.23 and 25), *granthāntara* (1.29–30; 3.5; 4.1, 8, 12; 5.7; 14.2; 19.38, 44, 46, 65–66), guror vacanam (1.10), Haima (16.5), *Haṭhapradīpikā*[197] (1.21), *Hitopadeśa* (1.6), *Mādhavanidāna* (10. 3), *Mañjarī* (1.1; 3.19),[198] *Nyāyaśāstra* (1.24), paribhāṣā (2.3, 4, 13; 6.19; 8.1; 9.1; 16.1; 18.1), *Praśnottararatnamālā* (1.15),[199] *Rasamañjarī* (1.2 and 3), *Rasaratnākara* (1.1, 2, 3, 6), *Rasasaṃketakalikā* (2.5), *Rasasāra* (2.6), *Rasāvatāra* (1.11), *Rasendramaṅgala* (1. 3 and 5; 2.3 and 5), *Śaktyavatāra* (2.9), *Saṃketakalikā*[200] (1.3), śruti (1.1 and 23), *Sūtra* (1.7 and 13),[201] *Vedāntasūtra* (1.9), vedāntavacana (3.28), and *Vidagdhamukhamaṇḍana* (1.3).[202]

Caturbhuja gives, from an unknown source, the following list of Rasasiddhas: Āllama,[203] Bhāluki, Bindunātha,[204] Carpaṭī, Gaja,[205] Ghoḍācolī,[206] Kākacaṇḍīśvara, Kaṇerī,[207] Kaṇṭhaḍī,[208] Kāpālika, Kapālin, Khaṇḍin,[209] Koraṇṭaka,[210] Manthānabhairava, Nāgadeva,[211] Nirañjana,[212] Nityanātha, Prabhudeva,[213] Pūjyapāda,[214] Siddhabuddha,[215] Siddhapāda,[216] Surānanda, Ṭhiṇṭhinī,[217] and Yogin[218] (ad 1.7).[219]

A long list of vāsanauṣadhis is found in the comments ad 3.4. This list mentions:[220]

abhracandrā,[221] ahilocanā, ajamārī, alambuṣā, aparājitā, apattrā, bṛhatī, caṇakāyāsī, citraparṇī, dantī, dhānyā, garuḍī, gojihvikā, halinī, haṃsapādī, hemapuṣpikā, īśvarī, jalacakorī, jalajā utpalī, jalamūlaka, jalapippalī, jalapūrvāmbusītā,[222] jālinī, jalodbhavāpāmārga, kapotī, kapotikī, kṣīrikā, kumārī, kumbhikā, kurkurī, lavaṇā, māṃsī, māṇḍūkī, mārjārapādikā, meghanādā, meṣikā, mīnākṣī, mohinī, mūrti, muśalī, nāginī, nandinī, pāṣāṇabhedikā, prasāriṇī, rasacandraukasa,[223] sārivā, sarpasugandhikā, śikhā, śikhipādī, sitajaṅghā, sthalajā padmā, śukanādā, svara, triparṇikā, tulasī, ugrā, upāmbu, uttamā, vajrakandaka, vanamālā, vanārjakā, varāhī,[224] vāribhūtā samaṅgā,[225] vāyasī, vidārī, vṛddhā, vṛścikālikā, and yavaciñcā.[226]

Outstanding (Rasa)siddhas referred to are Nityanātha (3.17; 5.36; 19.77) and Vīranātha (3.17).[227] Nāgārjuna is mentioned as a Yogīndra (19.70).

Caturbhuja's commentary abounds in anonymous quotations.[228] He mentions variants of Govinda's text[229] and gives vernacular equivalents for the names of some substances.[230]

Jasavanta Siṃha, who wrote a Hindī commentary on the *Rasahṛdaya*, regards Caturbhuja as one who had no first-hand knowledge of alchemy; he highlights a number of obviously wrong interpretations.[231]

Caturbhuja is quoted in Hazārīlāl Sukul's commentary on the *Rasaratnasamuccaya*. The commentary on the *Rasahṛdaya* is cited in Hariśaraṇānanda's *Kūpīpakvarasanirmāṇavijñāna*, Khare's commentary on the *Rasaratnasamuccaya*, and the *Rasatattvavivecana*.

Caturbhuja mentions in the introductory verses of his commentary that he was a grandson of Hariharamiśra of Kuralakula and a son of Maheśa; he was a brāhmaṇa of Khaṇḍelavāla lineage. Descendants of this lineage live in Jaypur, Bīkāner, and adjacent regions.[232]

This information proves that the commentator on the *Rasahṛdaya* is distinct from the Caturbhuja who was the father of Śivadatta, who wrote the *Śivakoṣa*.[233]

Caturbhuja's quotations from Cāmuṇḍa's *Rasasaṃketakalikā* and Śrīśailanātha's *Praśnottararatnamālā* indicate that he cannot be earlier than the sixteenth century.

A *Rasakalpadruma*, which may or may not be a work on rasaśāstra, is attributed to a Caturbhuja.[234] A treatise called *Aṣṭādaśasaṃskārāḥ* by a Caturbhuja is classified as a work on dharmaśāstra.[235] Rāmānanda, the author of a ṭīkā on the Kāśīkhaṇḍa of the *Skandapurāṇa*, was a pupil of a Caturbhuja.[236]

Chapter 5
Rasajalanidhi

The *Rasajalanidhi* by Bhūdeva Devaśarman (Bhudeb Mookerji)[1] is an extensive work in Sanskrit verse and prose, accompanied by an English translation, on all the aspects of alchemy and iatrochemistry.

Contents

Volume I consists of eight chapters, preceded by a maṅgala.

Chapter one (rasasādhanasya prayojanāni; 6–17) deals with the qualifications of a teacher and his disciple, the construction of the laboratory (rasaśālā), the rasaliṅga and its worship, and the equipment (upakaraṇāni) of the laboratory. Chapter two (śiṣyopanayana; 18–26) is on the initiation of a student. Chapter three (rasaprasaṅga; 27–36) begins with a eulogy of mercury, followed by verses on the various kinds of mercury and the meaning of its names.

Chapter four (pāradaprasaṅga; 7–220) deals with the blemishes of mercury (7–8), the eighteen saṃskāras (39–40), śodhana (40–51), svedana (51–53), mardana (54–56), uddhṛti (56–57),[2] ūrdhvapātana (57–60), adhaḥpātana (60–61), adhaḥpātana followed by ūrdhvapātana (61–63), tiryakpātana (63), rodhana or nirodha (63–66), niyāmana (66–69), dīpana (69–71), anuvāsana (71), the plants called rasamūlikā (72–73), two easy ways of complete purification of mercury (73–75), grāsana (75–93; verses on the preparation of viḍas[3] and a viḍavaṭī form part of this section), gandhakajāraṇa (94–98), abhrakasattvajāraṇa (98–99), mūrchanā (99–126; the preparation of rasasindūra, rasakarpūra, pītarasa, kṛṣṇarasa, parpaṭīrasa, rasatālaka, makaradhvaja, and svarṇasindūra forms part of this section), bandhana (126–129), saṃcāraṇa (129–130), garbhadruti (130–132), jāraṇa (132–142; related subjects dealt with are the vajramūṣā, viḍas, and a viḍavaṭī), grāsamāna (140–141), māraṇa (142–156), bhasmīkaraṇa (156–176), the medicinal uses of mercurial ashes (bhasman) and the anupānas to be taken (176–190), a few rasayogas (190–192: vajrapañjarasa, pañcāmṛta), the regimen that precedes the taking of mercurial preparations (192–195: kṣetrīkaraṇa), rules accompanying their use (195–205), the disorders resulting from improper use of mercury and the treatment of these disorders (205–213), niyāmaka plants (214), the plants called mūlikā (215–217), and plants and substances used in the killing (māraṇa) of mercury (217–220).

Chapter five (rasarañjana; 221–249) is concerned with the processes called rañjana (221–222), sāraṇā (222–236), saṃkrāmaṇa (236), and vedhana (237–249). Chapter six (yantrāṇi; 250–298) describes yantras and koṣṭhikās (250–285), crucibles (mūṣā; 285–

293), and puṭas (293–298). Chapter seven (299–320) contains a series of definitions (paribhāṣā; 299–309), followed by verses on weights and measures (309–311). The second part of the chapter is devoted to the bandhas of mercury (311–320). Chapter eight (321–350) describes methods of making gold and silver; it ends with some verses on the bleaching (śvetīkaraṇa) of copper.

Volume II consists of four chapters, preceded by a maṅgala. Chapters one to three are about the uparasas, chapter four deals with some of the metals.

Chapter one (2–129) begins with an enumeration of the uparasas, divided into three groups: (a) substances to be purified and killed: vajrābhra, the two kinds of mākṣika, vimala, śilājatu, tutthaka, sasyaka, capala, and rasaka; (b) substances used in mercurial operations: gandha, gairika, kāsīsa, kāṅkṣī, tāla, śilā, añjana, and kaṅkuṣṭha; (c) substances having some properties in common with mercury and therefore called sādhāraṇarasas: kampilla, gaurīpāṣāṇa, navasāraka, kaparda, vahnijāra, girisindūra, hiṅgula, mṛddāraśṛṅga, and bhūnāga.

The subjects of chapter one are: mica (abhraka), its four usual varieties, its purification, the preparation of dhānyābhra, the killing of mica, the amṛtīkaraṇa of the ashes, plants and some substances employed in the killing of mica, the medicinal uses of the ashes of mica, the extraction of the essence, its purification and killing, the softening (mṛdūkaraṇa) of essences, the liquefaction (druti) of mica, the transmutation (vedha) of base metals by means of mica (3–60); the varieties, purification, killing, the extraction of the essence, etc., of mākṣika (61–77), vimala (77–83), śilājatu (83–104), tuttha (104–110), sasyaka (110–115), capala (115–118), and rasaka or kharpara (118–129).

The subjects of chapter two (130–210) are: sulphur (gandhaka), its varieties, purification, the uses of purified sulphur, the preparation of gandhakataila, the removal of the bad smell, and the transmutation of metals by means of sulphur (130–149); the varieties, purification, the extraction of the essence, and medicinal uses of gairika (146–149), kāsīsa (149–152), kāṅkṣī or tuvarī (152–154), haritāla (155–196), manaḥśilā (196–201), añjana (201–207), and kaṅkuṣṭha (207–210).

The subjects of chapter three (211–236) are: kampilla and its purification; the purification of sādhāraṇarasas in general (211–212); the purification, etc., of gaurīpāṣāṇa (213–214), navasāra (214–216), varāṭikā or kapardī (216–219), śaṅkha (219–221), agnijāra (221–222), girisindūra (222–224), hiṅgula (cinnabar) (224–233), mṛddāraśṛṅgaka (233–234), and bhūnāgas (234–236).

Chapter four (237–288) is concerned with gold, silver and copper. The chapter begins with an enumeration of the seven metals (dhātu, loha): gold, silver, copper, iron, zinc, tin and lead, and the three alloys (miśraloha): pittala, kāṃsya and vartaka. The subjects of chapter four are: the varieties and properties, purification, killing, etc., of gold (237–259), silver (259–273), and copper (273–288).

Volume III is divided into eleven chapters.

Chapter one, preceded by a maṅgala, is devoted to iron and maṇḍūra (3–95). Its subjects are: the properties of iron, its seven natural blemishes, its varieties, purification, killing (bhānupāka, sthālīpāka, puṭapāka are also dealt with; the items of a number of gaṇas are enumerated), nirutthīkaraṇa and amṛtīkaraṇa of the ashes, the uses of the ashes, liquefaction of iron (3–91); maṇḍūra, its properties, varieties and uses, its purification and liquefaction (91–95).

Chapter two (96–140) is devoted to the varieties, properties, purification, killing, etc., of zinc (96–101), tin (101–120), and lead (120–140).

The subjects of chapter three (140–158) are: the three alloys, their purification and killing (140–152); triloha, its purification, killing and uses (152–153); the extraction of the essence of bhūnāga and the uses of this essence (kharasattva; 153–157).

Chapter four (159–259) is devoted to the ratnas and uparatnas (precious and semi-precious stones). Sixteen ratnas are enumerated: vajra (diamond), marakata (emerald), māṇikya (ruby), mauktika (pearl), nīlamaṇi (sapphire), gomeda (zircon), vaidūrya (cat's eye), dagdhahīraka or vaikrānta (garnet), sphaṭika (quartz), candrakānta (moonstone), sūryakānta (sunstone), pravālaka (coral), karketa (chrysoberyl), puṣparāga (topaz), rājāvarta (lapis lazuli), and bhīṣmaka (a kind of quartz); seven uparatnas are mentioned: pālaṅka (onyx), rudhira (carnelian), pūti(kā) or putrikā (peridote), tārkṣaja (turquoise), pīlu (jade), upala (opal, chalcedony and agate), and sugandhika (spinel) (159-160).

The subjects dealt with are: diamonds, their classification, characteristics, blemishes, purification, killing, etc. (163–187), the purification and killing of gems in general (188–195), marakata (196–201), māṇikya (201–209), pearls (209–217), nīla (217–220), gomeda (220–223), vaidūrya (223–226), vaikrānta (226–235), sphaṭika (235–237), candrakānta and sūryakānta (238–239), pravāla (240–242), karketa (242–244), puṣparāga (245–248), rājāvarta (248–251), bhīṣmaka or bhīṣmamaṇi (251–252), and the uparatnas (252–259).

Chapter five (260–282) deals with groups of alkaline substances (kṣāra), their sources, general properties, yavakṣāra, ūṣara, miśrakṣāra, svarjikṣāra, ṭaṅkaṇa, the uses of kṣāra, the preparation of kṣāra, more groups of kṣāras.

Chapter six (283–291) is about salts (lavaṇa); six types are distinguished: sāmudra, saindhava, viḍa, sauvarcala, romaka, and cūlikālavaṇa.

Chapter seven (292–329) describes poisonous substances (viṣa). Ten sources of sthāvaraviṣa (poisons of vegetable origin and inorganic substances) are distinguished: roots, leaves, fruits, flowers, barks, milky juices, woods, exudates (niryāsa), tubers, and metals. The usual eighteen poisonous tubers are enumerated and described (292–303).[4] The eight tuber poisons that may be used for medicinal purposes are divided into brāhmaṇa, kṣatriya, vaiśya and śūdra types. The disorders caused by poisonous substances and the treatment of these disorders are dealt with. The purification and killing of tuber poisons are described, followed by rules about the medicinal uses of poisonous substances. The chapter ends with poisons of animal origin, especially snake venom.

Chapter eight (330–360) gives an account of the minor poisons (upaviṣa), their purification and uses (330–351); the thirteen minor poisons (of vegetable origin) are: snuhī, arka, lāṅgalī, guñjā, karavīra, viṣamuṣṭi, dhattūra, jayapāla, bhallātaka, nirviṣā, ativiṣa, ahiphena, and jayā (= bhaṅgā).[5] The second part of the chapter is concerned

with the treatment of disorders caused by upaviṣas (351–357), the purification of a number of seeds, guggulu, and leeches (357–360).

Chapter nine (361–369) is about the extraction of oil (tailapātana) from a number of seeds.

Chapter ten (370–383) describes fermented fluids (saṃdhāna), which are divided into three groups: (1) alcoholic, (2) non-alcoholic, medicated, (3) non-alcoholic and non-medicated. The first group (madya) consists of gauḍī, mādhvī, paiṣṭī, kādambarī, vāruṇī, mādhūkī, maireyī, and mārdvīka; the second group consists of the āsavas and ariṣṭas; the third group consists of sīdhu, śukta, dhānyāmla, kāñjika, guḍaśukta, cukra, tuṣāmbu, sauvīra, āranāla, and śiṇḍākī.

Chapter eleven (384–390) contains definitions of śulvanāga, varaloha, ghoṣākṛṣṭatāmra, varanāga, cullakā, pataṅgirāga, āvāpa, abhiṣeka, nirvāpa, śuddhāvarta, bījāvarta, svāṅgaśītala, and bahiḥśīta. The chapter ends with a list of thirty-seven Rasasiddhas.

Volume IV consists of six chapters, preceded by a maṅgala and prayer to the author's iṣṭadeva.

Chapter one (3–35) is about rules regarding diet and behaviour, followed by general rules about the taking of medicines, in particular rasayogas. Chapters two to six deal with a number of diseases, their aetiology, symptoms and treatment, in particular the treatment with rasas.

Volume V begins with a maṅgala again, followed by a large number of adhikāras, devoted to the aetiology, symptoms and treatment, in particular the treatment with rasas, of many diseases.

Authorities, referred to in the *Rasajalanidhi*, are: Ādima (III, 65),[6] Bhāluki (II, 207), Brahmajyotis (III, 181),[7] Candrasena (III, 183[8] and 245),[9] Nandin (I, 265 and 271; II, 147), Lakṣmīśvara (II, 245),[10] Rāmacandra (III, 4–5),[11] Śambhu (I, 280), Somadeva (III, 156),[12] Śukra (III, 65),[13] and Suśruta (III, 279).

The list of thirty-seven Rasasiddhas (III, 389–390) consists of: Ādima, Anantadevasūri,[14] Bhāskara, Bhūdeva,[15] Brahmā, Brahmajyotis,[16] Candrasena, Daṇḍin,[17] Gomukha, Govinda, Hari, Indrada, Kambali, Kāpālika, Kapālin, Khaṇḍa, Lambaka, Laṅkeśa, Māṇḍavya, Manthānabhairava, Matta, Nāgabodhi, Nāgārjuna, Nandirāja, Naravāhana, Nityanātha,[18] Rāma,[19] Ratnakośa, Śambhu, Sāttvika, Somadeva,[20] Śukrācārya,[21] Surānanda, Śūrasenaka, Vāgbhaṭa,[22] Vyāḍi, and Yaśodhara.

Apart from the authorities referred to, sources are not indicated by the author. Some of the texts from which verses were borrowed are: *Rasacintāmaṇi*,[23] *Rasaratna*,[24] *Rasaratnākara*,[25] *Rasaratnasamuccaya*,[26] *Rasārṇava*,[27] *Rasasāra*,[28] *Rasendracintāmaṇi*,[29] *Rasendracūḍāmaṇi*,[30] and *Rasendrasārasaṃgraha*.[31]

The *Rasajalanidhi* is one of the sources of the *Rasavidyāmahārṇava*.

Hariprapanna is mentioned in Hazārīlāl Sukul's commentary on the *Rasaratnasamuccaya*.

Special features

The eighteen saṃskāras are: śodhana, svedana, mardana, uddhṛti, pātana, rodhana, niyāmana, dīpana, anuvāsana, grāsana, mūrchana, saṃcāraṇa, garbhadruti, jāraṇa, māraṇa, bhasmīkaraṇa, rañjana, and vedhana (I, 39).[32] A type of vedha, added to those borrowed from the *Rasendracūḍāmaṇi* (4.107cd–111), is sparśavedha (I, 248–249).

The svedanī- and kandukayantra are regarded as identical (I, 251).[33] The same applies to the vidyādhara- and pātanāyantra (I, 251–252).[34] Yantras added to the series found in the *Rasaratnasamuccaya* are: khalacarīyantra (I, 268), jalayantra (I, 272–273). ṭaṅkaṇayantra (I, 279), pātālayantra (I, 279–280), tejoyantra (I, 280), gaurīyantra (I, 282), cakrayantra (I, 283), nāḍikāyantra (I, 284), and vāruṇīyantra (I, 285). The hiṅgulākṛṣṭiyantra and valabhīyantra of the *Rasaratnasamuccaya* are absent.

Two series of plants and some other substances which are helpful in killing mica are enumerated (II, 29 and 37).

Mākṣika is said to be found along the river Tāpī, in Kirāta, Cīna and Kānyakubja (II, 61); three varieties are mentioned: svarṇamākṣika, yellow in colour, vimala, red in colour, and tāramākṣika, white in colour; dependent on its shape, four varieties are distinguished (II, 62–63).

A kind of copper, called nāgatāmra, can be extracted from peacock's feathers; a ring, made from this material, cures śūla and overcomes all sorts of poison (II, 108–110).

Four varieties of kāsīsa are described: (a) vālukākāsīsa, white in colour; (b) puṣpa- or padmakāsīsa, yellow in colour; (c) dhātu- or muktakāsīsa, black in colour; (d) a green variety (II, 149–150). Two varieties of kāṅkṣī, tuvarī or saurāṣṭrī are distinguished: pītikā and phullikā or phullatuvarī; gopīcandana is one of the names of kāṅkṣī (II, 152); the essence of tuvarī is called sphaṭikā (II, 154). Haritāla is of four kinds: pattra- and piṇḍaharitāla, godanta, vakadāla (II, 155). Manaḥśilā is of three kinds: śyāmāṅgī, kaṇavīrakā and khaṇḍākhyā (II, 196). Añjana is of six kinds: sauvīrāñjana, nīlāñjana, rasāñjana, sroto'ñjana, kulatthāñjana and puṣpāñjana (II, 201); three types of rasāñjana are distinguished (II, 203). Gaurīpāṣāṇa is also called dārumūṣaka, mūṣaka and sambala; a red, yellow and white variety are distinguished (II, 213). A varāṭī or kapardī is killed by means of an apparatus called pāṇikāyantra (II, 219). Girisindūra is regarded as an upadhātu of lead; two varieties are distinguished: girisindūra and nāgasindūra (II, 222–223).[35]

King Rāmacandra is said to have distinguished eight kinds of iron: sāmānya, krauñca, kāliṅga, bhadra, vajra, pāṇḍi, nīrava and kānta (III, 4–5). The three usual types of iron are described: muṇḍa, tīkṣṇa and kānta. The three varieties of muṇḍa are mṛdu, kuṇṭha and kaḍāra (III, 6); the six varieties of tīkṣṇa are khara, sāra, hṛnnāla, tārāpaṭṭa, vajraka and kālalauha (III, 7); the five varieties of kānta are bhrāmaka, cumbaka, karṣaka, drāvaka and romakānta (III, 14–15). Curved lines on the surface of steel are called pogara (III, 8–9). Plants helpful in the killing of iron are gaṇḍinikā (also called sālahañcī, haritparṇī and martakalambukā), kuṭhāracchinna, vikaṅkata and raktamāriṣa (III, 63–64). One method of killing iron, resulting in a product called sudhāsāgaralauha, has to be continued for 4,380 days and requires the juice of 4,380 different plants (III,

70–71).

An apparatus called bhṛṣṭayantra is employed in one of the operations leading to the killing of lead (III, 132). Rītikā (brass) is of two varieties: rājarītikā, consisting of two parts of copper and one part of zinc, and brahmarīti or kākatuṇḍī, an alloy of copper, zinc, and lead (III, 141). The alloy called triloha is composed of twenty-five parts of gold, sixteen parts of silver, and ten parts of copper (III, 152).

A particular gem, called bhallāta, is said to resemble an emerald (III, 201). Three kinds of sphaṭika are described: mandakāntika (found in the Vindhyas), a black kind (found in Sri Lanka), and jyotīrasa; the last kind is of three varieties: rājāvarta, rājamaya and brahmamaya (III, 236). Upala is of three kinds: marmarāśman (chalcedony), varopala (opal) and rudhirapālaṅka (agate); a white marmarāśman is called karpūramaṇi; a black variety of upala is called bhramaramaṇi (III, 257–258).

Treatment with duly purified poison is said to cure the eight types of kuṣṭha; the unusual series of eight kuṣṭhas consists of puṇḍarīka, visphoṭa, śveta, audumbara, chinnabhinna, kāpālākhya, klinnāhva and śavagandhi (III, 319).

The chapter on upaviṣas (III, 330–360) enumerates many names of the poisonous plants described; five varieties of karavīra are distinguished (III, 337) and four varieties of opium (III, 348); the resin from the flowers of hemp (i.e., hashish) is called gañjārasa (III, 351).

A fermented fluid not known from other texts is jāli (III, 381).[36]

The order of the diseases in volumes IV and V does not agree with any of the current arrangements.[37]

The author and his date

The name of the author is Bhūdeva Devaśarman Mukhopādhyāya. He was a brāhmaṇa of Bhāradvājagotra, a son of Harilāla and Nistāriṇī, and was born in Bengal, in a village called Hastiśāla on the banks of the river Mayūrākṣī, in the year 1885. The author mentions Śrīharṣa, who composed the *Naiṣadhacarita*, as one of his forefathers.[38]

Bhūdeva Mukhopādhyāya (Bhudeb Mookerjee) was a practising āyurvedic physician in Calcutta.

Chapter 6
Rasakāmadhenu to *Rasāmṛta*

The *Rasakāmadhenu*

The *Rasakāmadhenu* by Cūḍāmaṇi[1] is a compilation, based on earlier texts devoted to alchemy and iatrochemistry.

Contents[2]

The *Rasakāmadhenu* consists of four sections: upakaraṇapāda (seven chapters), dhātusaṃgrahapāda (five chapters), sūtakriyāpāda (nine chapters), and cikitsāpāda (fifty-nine chapters). Sections one to three comprise 5,566 verses, interspersed with comments in prose. The verses are borrowed from a large number of sources, mostly mentioned by name; the prose is added by the author.

The subjects of the chapters (adhikāra) of the upakaraṇapāda are: (1) the alchemical apparatus, implements, etc. (yantra; 179 verses); (2) the fire place (culhī), fuel, puṭas, weights and measures, vessels, etc. (culhyādiprakīrṇa; 73 verses); (3) plants used in alchemical operations (vanauṣadhi; 138 verses); (4) major and minor poisons (viṣa and upaviṣa), substances of animal origin (jaṅgamavarga), oils (taila), various groups of substances, salts and caustics, biḍas, and rañjana (viṣajaṅgamavasāpittatailamalamūtrakṣāralavaṇabiḍarāga; 311 1/2 verses); (5) the preparation of bījas (bījasādhana; 141 1/2 verses); (6) the making of mixtures (dvandvamelana), krāmaṇa and rañjana (dvandvamelakrāmaṇarañjana; 182 verses); (7) the teacher, the sādhaka and his female companion, the initiation (dīkṣā), the rasaliṅga and its worship, behavioural rules (ācāra) (rasasādhanopāyakathana; 170 verses).

The subjects of the chapters of the dhātusaṃgrahapāda are: (1) the metals, their purification, killing, uses, etc. (sarvalohavidhāna; 923 verses); (2) the gems (maṇi or ratna), their purification, killing, liquefaction (druti), etc. (maṇiratnaśaṅkhavarāṭikādividhāna; 167 verses); (3) the mahārasas, their purification, the extraction of their sattvas, their killing, etc. (mahārasāṣṭakavidhāna; 384 verses); (4) the uparasas, their purification, the extraction of their sattvas, their uses, etc. (uparasavidhāna; 273 verses); (5) salts and caustics (lavaṇakṣāra; 50 verses).

The subjects of the chapters of the sūtakriyāpāda are: (1) the names of mercury, its eulogy, origin and varieties, a māhātmya devoted to mercury, the blemishes of mercury and the disorders caused by them (rasanāmabhedamāhātmyaguṇadoṣanirūpaṇa; 78 verses); (2) the saṃskāras, their number, short descriptions of the saṃskāras (rasasaṃskāravivekalakṣaṇasaṃkṣepakathana; 99 verses); (3) śodhana, svedana, mardana, mūrchana, pātana, nirodhana, niyamana, and dīpana (rasarājāṣṭasaṃskārakathana;

190 verses); (4) jāraṇa and related subjects (sūtajāraṇa; 372 verses); (5) additional information on the divine herbs (divyauṣadhi) and their uses (496 1/2 verses); (6) jāraṇā of gems (ratna) for the purpose of rañjana (ratnādijāraṇā; 108 verses); (7) the types of bandha (baddhajāraṇa; 692 verses); (8) the preparation of various pills (guṭikā; 210 verses); (9) sāraṇa, māraṇa, vedha, sevā (sāraṇādi; 329 verses).

The subjects of the chapters of the cikitsāpāda are: the nidāna and therapy of (1) jvara, (2) dāha, (3) tṛṣṇā, (4) mūrchā, (5) apasmāra, (6) unmāda, (7) madātyaya, (8) pāṇḍurogādi, (9) raktapitta, (10) chardi, (11) amlapitta, (12) arocaka, (13) agniroga, (14) saṃgrahaṇī, (15) atīsāra, (16) ānāha, (17) udāvarta, (18) urograha, (19) hṛdroga, (20) kṛmi, (21) śūla, pariṇāmaśūla, annadravaśūla, jaratpittaśūla, (22) gulma, (23) udara, (24) śotha, (25) ślīpada, (26) aṇḍavṛddhi, (27) galagaṇḍa, gaṇḍamālā, apacī, arbuda, (28) medoroga, (29) prameha and pramehapiḍakā, (30) mūtrakṛcchra, (31) mūtrāghāta and aśmarī, (32) kṣayaroga and rājayakṣman, (33) kāsa, (34) śvāsa, (35) hikkā, (36) svarabheda, (37) vātavyādhi, (38) āmavāta, (39) vātarakta, (40) kuṣṭha, (41) śītapitta, udarda, koṭha (42) kodrava and masūrikā, (43) kṣudraroga, (44) śūkaroga, (45) upadaṃśa, (48) arśas, (49) bhagandara, (50) vidradhi, (51) śārīravraṇa, (52) āgantukavraṇa, (53) nāḍīvraṇa, (54) dagdhavraṇa and snāyuroga, (55) netraroga, (56) ūrdhvajatrugataroga, (57) strīroga and somaroga, (58) bālaroga, (59) viṣa, (60) sāmānyavidhividhāna.[3]

The last chapter deals with general subjects: the doṣas, their excitation, general remedial measures (sveda, virecana, vamana, raktamokṣa, laṅghana, dhūma, nasya, vraṇopakrama, śastrakarman, etc.).

The works and authorities quoted or referred to are:[4] the author's own *Abhidhānakāmadhenu* (I.4.5–6, 167–172, 175cd–182ab; II.1.65cd–69ab, 162–167ab, 690–695ab; 4.4–5), also quoted as *Kāmadhenu* (II.2.1–2 and 6–7; 3.218, 261, 276, 282, 319–321ab; 4.16–17ab, 173cd–175ab, 189, 194–197ab, 239–240; 5.1–9ab; III.1.1–2), *Ajīrṇamañjarī* (I.4.166),[5] *Ayurvedaprakāśa* (II.1.168–170; 4.241–242),[6] Bhāluki (II.4.220), the author's own *Bhāvacintāmaṇi* (I.4.4 and 145; II.1.197–198, 666–671, 695–699, 720; 2.8 and 35–39; 3.72; 4.20, 175–176, 201–203, 211–212, 238; III.1.34–37), *Candrajñānatantra* (mantras between I.7.141 and 142),[7] Caraka (prose between II.1.689 and 690;[8] 3.332–333, prose between 342 and 343), Devanāthamiśra (II.4.31–34; III.2.38),[9] Devendragiri (I.1.69 and 157–158; 4.201cd–203ab; 5.30; 6.26–34; prose between 7.46 and 47; II.1.132–133ab and 576–580; 3.84–85; prose between III.4.39cd and 40; 7.472cd–489ab; 9.212), Devendragiri's *Rasāyanasārasaṃgraha* (I.5.136–141; II.1.256–267ab),[10] *Devendragirisaṃgraha* (II.1.46, 498–505, 735–736; 3.67–68ab and 124–127; 4.26cd–29; III.7.32cd–36, 78–80ab, 112cd–119, 125cd–151, 249cd–252ab, 302–308; 8.55–68 and 73–117; 9.39cd–50 and 97–100ab),[11] *Devīyāmala* (1.66–69ab; 2.1–4; 4.311; 5.136cd; II.1.874–879; 3.149–157ab; 4.57–60ab and 230–231ab; III.2.36 and 39–47; 9.74–78),[12] *Dhanvantarīya* (II.1.98),[13] *Gorakṣamata* (II.3.362–367), Hemacandra (prose between IV.9.242 and 243), *Kakṣāputī* (III.5.316),[14] *Lohapaddhati* (II.1.78–79, 668–675ab, 685–687, prose between 689 and 690, 699–702, 719, 723–724, 758–807; 3.69–71 and 80–82),[15] *Lohaśāstra* (II.1.675–685ab), Manthānabhairava (I.3.54), Nāgārjuna (II.3.287), *Nighaṇṭurāja* (I.4.149),[16] *Purandararahasya* (II.3.360–361), *Rasacintāmaṇi* (I.4.240–256ab; II.1.81–83, 109–111ab, 317–318, 320–321, 349–403, 428–456, 478–482, 495–497, 519cd–521, 533–575, 610–647, 752–754, 852–860, 911–915; 2.125–127 and 133–137; 3.162–167ab, 246cd–248, 307cd–310; 4.104–173ab, 218, 252–254, 273; III.3.147–150ab and 160cd–163; 4.7–20, 37–40ab, 169cd–177ab, 264–268; 7.120–122, 212ab–220, 319–363, 431–454ab; 8.37cd–49ab and 118–131ab),[17] *Rasadarpaṇa* (I.1.61–62ab; II.1.101–108; 3.383; III.1.44; 3.59), *Rasahṛdaya* (often), *Rasālaṃkāra* (III.5.287cd–291), *Rasamañjarī* (often), *Rasamārtaṇḍa* (I.4.2–3ab, 83–84, 174cd–175ab, 239, 300cd–304ab; 7.45–46; II.2.31cd–35ab; 3.311–312; III.2.20–22; 3.2 and 5cd–7ab; 9.313–328), *Rasāmṛta* (II.1.4–5ab, 20, 74, 889–897ab), *Rasapaddhati* (often), *Rasapaddhatiṭīkā* (often), *Rasapradīpa* (II.1.506), *Rasarahasya* (III.5.280cd–287ab), *Rasarājahaṃsa* (II.4.21–22; III.4.177cd–178ab), *Rasarājalakṣmī* (I.4.150–158ab, 191–197, 203cd–211; II.1.34–43ab; 3.2cd–4ab; prose between 3.4 and 5, 24cd–26ab, 221, 265cd–270ab; 4.3; III.1.40; 3.7cd–9ab; 4.113–139 and 312–325ab; 7.204–205), *Rasaratna* (II.1.111cd–116), *Rasaratnadīpikā* (III.3.1; 8.49cd–54), *Rasaratnākara* (often), *Rasaratnapradīpa* (II.1.518cd–519ab; III.4.198–200; 7.203), *Rasaratnapradīpikā* (I.5.21–22; II.1.918–923; 4.30; III.1.55; 3.25cd–27, 80cd–81, 103–104; 4.187cd–189ab and 211–214; 5.343–344), *Rasaratnasamuccaya* (I.1.25–29ab), *Rasārṇava* (often), *Rasasaṃketakalikā* (I.4.51–52ab, 62cd–63, 74cd–75ab, 77cd–80ab; II.1.73cd, 117–119, 171, 308–309, 314, 322–326, 465, 689, 866–870ab; 3.135 and 215; III.1.12cd–15), *Rasasāra* (often), *Rasavāgbhaṭa* (I.1.130cd–131; III.4.164cd–169ab), *Rasāyanasārasaṃgraha* (II.1.599cd–601ab; III.7.182cd–202),[18] *Rasendracintāmaṇi* (often), *Rasendracūḍāmaṇi* (often), *Rudrayāmala* (III.3.165cd–185; 4.236–241), *Śaivālabhakṣya(mata)* (I.1.133–144; II.3.359), Somadeva (I.3.54),[19] *Somanāthasaṃgraha* (II.1.344cd–347),[20] Suśruta (I.4.9; prose between 4.35 and 36; II.5.17; prose between 5.29 and 30), Trilocana (prose between I.2.40 and 41), Vāgbhaṭa (prose between II.3.342 and 343), *Vaidyakalpadruma* (II.1.472cd–477, 511cd–514ab, 885cd–888; 3.170cd–174, 233, 335cd–338ab, prose between 377 and 378; 4.69cd–72ab and 215–216), *Vaidyakalpataru* (II.1.182–184ab), and *Yāmala* (I.1.161–164; II.4.190–192ab).

Some quotations are from a source not mentioned by name.[21] Variants of verses quoted are occasionally referred to in the comments of Cūḍāmaṇi.[22]

The *Rasakāmadhenu* is, in spite of its compilatory character, an interesting and valuable work. The quotations abound in readings which may profitably be compared with those of the manuscripts and editions of the works cited.[23] The *Rasakāmadhenu* also contains numerous passages from less well-known treatises.

Particularly interesting are the quotations from the *Abhidhānakāmadhenu* and *Bhāvacintāmaṇi*, written by Cūḍāmaṇi himself, and those from the *Rasāyanasārasaṃgraha* or *Devendragirisaṃgraha* by Devendragiri. The *Abhidhānakāmadhenu* is one of the sources of the *Pāradasaṃhitā*; it is quoted in one of the pariśiṣṭas of the *Ānandakanda*.[24] The *Bhāvacintāmaṇi* is cited in Hazārīlāl Sukul's commentary on the *Rasaratnasamuccaya*. Devendragiri and his *Rasāyanasārasaṃgraha* are quoted in Gulrājśarmamiśra's commentary on the *Āyurvedaprakāśa*.

The passages from the *Abhidhānakāmadhenu* show that it was an alchemical nighaṇṭu in verse, dealing with the origin, names and varieties of many substances employed

in alchemical operations. Distinctive features of the *Abhidhānakāmadhenu* are, for example: sixteen poisons of vegetable origin, which constitute an unusual series: viṣa, hālāhala, brahmaputra, saurāṣṭrakāhvaya, pradīpana, dāradākhya, kākola, śauktikeyaka, ahicchattra, meṣaśṛṅga, kuṣṭha, haimavata, pippala, pātāla, malina, and kambala (I.4. 5–6); groups of kṣāras, consisting of up to ten items (4.175cd–179); twelve varieties of tīkṣṇaloha: khara, yogala or yogara, vājara, honnāla, pāraśava, sāndra, sāra, auṇḍra, kāliṅga, bhadra, pāṇḍya, and kṛṣṇāyas (II.1.690–695ab); some of the names of rasaka: jasada, caura, śīśakākāra, kharpara, kharparikā, kiṭibha, hematāraja (I.4.282); the series of uparasas: gandha, tāla, śilā, saumya,[25] añjana,[26] tuttha, abdhiphenaka, khaga (= kāsīsa), sindūra, girija, khaṭī, aśman, kācamṛttikā, sphaṭikā, goja, kaṅkuṣṭha, rājāvarta, the salts and the caustics (II.4.4–5).

The *Bhāvacintāmaṇi* was concerned with the merits and defects (guṇas and doṣas) of these substances. This work also listed the items belonging to some groups of substances; an example is the viḍvarga (I.4.145).

Devendragiri's *Rasāyanasārasaṃgraha* was, as appears from the quotations, a complete alchemical treatise in verse, containing independent descriptions of many processes; Devendragiri's views deviated in some respects from those of earlier authorities.[27]

The *Rasakāmadhenu* is quoted in the prakīrṇaka pariśiṣṭa of the *Ānandakanda*, Gulrājśarmamiśra's commentary on the *Āyurvedaprakāśa*, the *Āyurvedīya Khanijavijñāna*, Hazārīlāl Sukul's commentary on the *Rasaratnasamuccaya*, Narendranātha's *Capalanirṇaya*, incorporated in the *Rasataraṅgiṇī*, and in the *Rasatattvavivecana*. It was one of the sources of the *Bheṣajasaṃhitā*, Devasiṃha Viṭṭhal's *Bṛhadāsavāriṣṭasaṃgraha*, Hariśaraṇānanda's *Kūpīpakvarasanirmāṇavijñāna*, the *Pāradasaṃhitā*, *Rasadhātuprakāśa*, *Rasayogasāgara*, *Rasendrasambhava*, *Rasoddhāratantra*, and Somadevaśarman's commentary on the *Āyurvedaprakāśa*.

Cūḍāmaṇi is quoted in Gulrājśarmamiśra's commentary on the *Āyurvedaprakāśa* and Hazārīlāl Sukul's commentary on the *Rasaratnasamuccaya*.

Special features

Cūḍāmaṇi's very systematic treatise usually gives the opinions of a number of authorities on a particular subject, without making a choice. He is not even biased when quoting the views of his teacher, Devendragiri. Incidentally, he makes a personal statement.[28] Occasionally, he rejects statements made in particular works.[29]

Cūḍāmaṇi adds a large number of valuable glosses to his quotations. He gives information on the uses of the yantras[30] and explains which terms are synonymous.[31] Technical terms are frequently elucidated.[32]

Cūḍāmaṇi's comments are concise in most cases, but, sometimes, they are elaborate and detailed.[33]

The remarks on the identity of plants are useful: alaka (II.1.11: = devadālī), cakrī (I.3.24: = cakriṇīlatā and cakramarda), cāṇḍālī (I.3.23: = bhūmyāmalakī and a divyauṣadhi), daṣuṇa (I.4.235: = raktaśāka), dhāvanī (III.3.59: = pṛśniparṇī), gaṇḍanikā (II.1. 760: = gaṇḍadūrvā), gartakalambukā (II.1.761: = nākulī), haritparṇī (II.1.761: = kumārī), hima (II.3.115: = kaṭphala), kāmācī (II.3.188: = kākamācī), maurvī (II.3.193: = bhūrjapattra), raktasnuhī (I.3.24: = sātalā and a climber which resembles sehuṇḍa), raktaśṛṅgī (I.3.24: = a variety of śāka and some climber), raktavarṇa (I.3.26: = citraka and eraṇḍa), ratnapuṣpā (I.1.139: = atasī), śālahañcī (II.1.761: = mañjiṣṭhā), smāriṇī (III.3.59: = matsyākṣī or vacā), śṛgālī (III.3.59: = śāliparṇī), stokā (II.1.760: = balāmoṭā), uccaṭā (I.3.26: = śvetaguñjā and some climber), vanaka (II.1.895: = tumbaru), vanamākṣika (II.1.763: = vanamadhūka), vegā (II.3.196: = jyotiṣmatī), vīrā (III.7.226: = vidārī), vraṇaghnī (III.3.27: = kumārī), vyāghrī (I.3.27: = kaṇṭakārikā and some climber).

The lists of plants used in alchemical operations are quoted from several sources. Some lists are from the *Rasārṇava* (I.3.12cd–22 and 38cd–43),[34] *Rasasāra* (I.3.34–36[35] and 3.124–138),[36] and *Rasendracūḍāmaṇi* (I.3.54–123).[37] A list, quoted from an unknown source, enumerates the following plants called mūlikā: ādityabhaktā, aṅkulī, apāmārga, avākpuṣpī, bhārṅgī, bhekaparṇī, candravallī, citraka, devadālī, eraṇḍa, gavākṣikā, goḍumbā,[38] gopālakarkaṭī, halinī, harikrāntā, indrā, kāṇḍavallī, karkoṭī, kokamā, kṣīrakandaka, kuḍahañcī, kuṭṭāra, mūṣakakarṇī, nākulī, punarnavā, rudantī, śāṇikā, śaṅkhapuṣpikā, śarapuṅkhā, śikhiśikhā, snuhī, tridhārā,[39] tridhāraka, ūrdhvapuṅkhikā, vajrakanda, and vajrī (I.3.7cd–12ab).[40]

The list said to be from the *Rasaratnākara* cannot be traced in that treatise;[41] it consists of the following plants called rasamūlikā: adrikarṇikā, ākhukarṇikā, amṛtākanda, bhṛṅga, brahmadaṇḍī, bhūkanda, cakramarda, citraka, dhattūra, dūrvā, grīṣmasundara, haridrā, hastiśuṇḍī, iṣupuṅkhikā, jayantī, jātī, kākajaṅghā, kākamācī, kañcukī, kaṭutumbikā, kośātakī, kṣīriṇī, kusumbhaka, lajjālu, lāṅgalī, mahārāṣṭrī, maṇḍūkaparṇī, matsyākṣī, mūrvā, nīrakaṇā, pātālī, raktāgranirguṇḍī, rambhā, rasāṅkuśā, śairyaka, śaṅkhapuṣpikā, sarpākṣī, śatāvarī, śigru, śikhiśikhā, śimbikā, śrīdevī, suradālikā, sūryāvarta, śvetārka, tilaparṇikā, utpala, vajrakandā, vajralatā, vandhyā, vārāhī, and varṣābhū (I.3.1–7ab).

The arrangement of the diseases in the Cikitsāpāda is unusual and does not conform to a recognized pattern. Most of the nidāna verses of this section are from the *Mādhavanidāna*. Diseases added to those described by Mādhava are urograha (18),[42] snāyuroga (54), and somaroga (57).[43]

The chapter on jvara mentions several series of saṃnipāta fevers, without describing them: (1) visphāraka, śīghrakārin, puṣpaṇa, vidhura, makarin, phalgu, vaidārin, karṇaka, karkoṭaka, saṃmoha, yāmya, krakaca, pālaka, kūṭapālaka (1.168–169);[44] (2) sandhiga, jihvaka, pralāpaka, tandrika, rugdāha, śītagātra, karṇaka, cittavibhrama, raktaṣṭhīvin, kaṇṭhakubja, bhugnanetra, abhinyāsa, saṃnyāsa, hataujas (1.170–174);[45] (3) antardāha, daṇḍapāta, antaka, kumbhīpāka, prorṇunāva, pralāpin, eṇīdāha, bhūtahāsa, ajaghoṣa, hāridra, saṃśoṣin, yantrāpīḍa, saṃnyāsa (1.175–179).

The total number of irregular fevers (viṣamajvara) is said to be thirty-five. Apart from the well-known types, some other fevers belonging to this group are: saptāhasaṃtata, daśāhasaṃtata, dvādaśāhasaṃtata, pañcadinajvara, ṣaḍdinajvara, pralepaka, vātabalāsaka, tṛṇapuṣpaka, ojonirodhajajvara, and rātri- or velājvara (1.611–622).

The treatments described are not restricted to rasayogas, but comprise more traditional āyurvedic measures and prescriptions as well.

The author
Cūḍāmaṇi was a grandson of the physician Balabhadramiśra, who was a Śākadvīpīya brāhmaṇa, and a son of Harirāma.[46]

Cūḍāmaṇi was a pupil of Devanāthamiśra; some verses from an alchemical treatise by the latter are quoted in the *Rasakāmadhenu*.

P.K. Gode[47] tentatively identified this Devanātha with the father of the Vāsudeva who wrote a commentary, called *Bhuvanacandrikā* or *Bhuvanārthacandrikā*, on Subandhu's *Vāsavadattā*.[48] Vāsudeva's references to himself as a Śakadvīpīya made P.K. Gode advance this hypothesis. The provisional identification was supported by evidence, discovered somewhat later by P.K. Gode, after studying a MS of Vāsudeva's commentary.[49] Vāsudeva, who calls his father Devanātha an eminent physician and a second Dhanvantari, refers to and quotes from a work on rasaśāstra, called *Rasamuktāvalī*, written by him.

The relationship between Cūḍāmaṇi and Devendragiri, author of the repeatedly quoted *Rasāyanasārasaṃgraha*, remains to be elucidated.

Date
Cūḍāmaṇi's chronological position can be deduced from his acquaintance with Mādhava Upādhyāya's *Āyurvedaprakāśa*.[50] His posterity to Mādhava Upādhyāya implies that he lived after the second half of the seventeenth century.[51] This date is confirmed by the quotation from Kāśīnātha's *Ajīrṇamañjarī*, the earliest MS of which was completed in A.D. 1617.

The *Rasakaumudī*

The *Rasakaumudī* by Jñānacandraśarman[52] is a treatise that can be divided into an alchemical (chapters one to three) and an iatrochemical part (chapter four). The work is written in a defective language and style.[53]

Contents
Chapter one (rasotpattyadhikāra; 20 verses) has five introductory verses, followed by an account of the origin of mercury (1.6–20). Chapter two (rasendraśuddhyadhikāra; 30¹/2 verses) is concerned with nine defects (doṣa) of mercury (2.3–4ab), the disorders they give rise to (2.4cd–6), and nine saṃskāras and their effects (7–30¹/2). Chapter three (96 verses) describes the purification (śuddhi) of all the lohas and pāṣāṇas (3.1–5ab),[54] the purification of gandhaka and abhraka (3.5cd–8), sattvapātana of all the pāṣāṇas (3.9–15ab), druti of pāṣāṇa, vajra, loha and abhraka (3.15cd–21ab), māraṇa of triloha, i.e., nāga, vaṅga and rasaka (3.21cd–23ab), māraṇa of all the lohas (3.23cd–26), two types of māraṇa of abhraka (3.27–31ab), māraṇa of vajra (3.31cd–34ab), two types of māraṇa of mercury (3.34cd–37), four varieties of rasabhasman and their medicinal properties (3.38–43), a ritual (siddhapūjāvidhi) to pay homage to the eight Siddhas, nine Nāthasiddhas and their spouses, and the nine Durgās[55] (3.44–53ab), the preparation of iṣṭārthasiddhiguṭikā (3.53cd–67),[56] rasadīpana (3.68–71ab), grāsapradāna (3.71cd–78ab), rasamukhabandha (3.78cd–89), vedāmukharasa

(3.90–93), and dhūmavedhirasa (3.94–96). Chapter four (132 verses) describes thirteen rasayogas. The treatise ends with the formula of trailokyacintāmaṇirasa.

Sources are not referred to.[57] Three formulae are attributed to Śaṃkara,[58] Ṣaṇmukha[59] and Viśvāmitra[60] respectively.

Jñānacandra's *Rasakaumudī* is one of the sources of the *Rasayogasāgara*.

Special features
The account of the origin of mercury (rasotpatti) in chapter one differs from the versions found in other texts.[61] The nine doṣas of mercury described in the *Rasakaumudī* are: uḍḍīnatva,[62] kauṭilya, anāvarta,[63] saṃkara, ṣaṇḍatva, vahnikāritva, samalatva, gurutva, and saviṣa (2.3–4ab).[64] The disorders brought about by these defects are: (1) śūla, (2) kapālaruj, (3) bhramodvega, (4) doṣasaṃcaya, (5) asaṃtāna (infertility), (6) kuṣṭha, (7) vānti, mūrchā and mahodara, (8) jāḍya and mūrchā, and (9) gātrakṣaya (2. 4cd–6). The kañcukas are left unmentioned.

The nine saṃskāras, leading to a product able to bring about deha- and lohasiddhi are:[65] mardana, utthāpana, (adhaḥ)pātana, dīpana,[66] jāraṇa, sāraṇa,[67] grāsapradāna,[68] rañjana, and krāmaṇa (2.7–30¹/2). The term triloha is used to designate lead, tin and rasaka (3.21cd–23ab).[69] The second type of māraṇa of mercury (3.36–37) does not result in māraṇa, but in mūrchana.[70] Four varieties of rasabhasman are described: kṛṣṇa, pīta, śyāma and karbura in colour (3.38–41);[71] these substances are medicinally valuable; the kṛṣṇa variety leads to dehasiddhi, the yellow (pīta) one removes kuṣṭha, the śyāma variety removes all the doṣas, the karbura variety has aphrodisiac properties; an added fifth variety, red in colour, abolishes the three doṣas (3.42–43). Eight lohas are referred to (4.1).

Interesting terms occurring in the *Rasakaumudī* are: aṣṭaśūla (4.46 and 74), pañcamitraka (3.17), maṇḍala (4.22, 23, 31, 100, 123, 129),[72] raktagrahaṇī (4.66),[73] raktagrahiṇikā (4.58 and 66), sindūra (4.27),[74] takrameha (4.17),[75] vajratuṇḍījantu (3.32), and vṛścikavāta (4.11).

Noteworthy plant names are: bhūdantī (4.13 and 119), bhūguñjā (4.70), bhūśigru (4.70), dvijihvā (4.119), dvikaṇṭikā (4.119), gorakṣikā (2.28),[76] kaḍukanda (3.11), kaṇḍūkī (3.9), kṛṣṇacitraka (4.93), kṛṣṇāmalaka (4.93), kṣīrakarṇī (3.9), kurūṭikā (3.9), mātaṅga (4.55), nīlabhṛṅgī (4.12), nīlaśṛṅgī (3.38), and śvetagandhārī (4.119).

The author
Jñānacandra was a brāhmaṇa and a son of the physician Sarvajñacandra of Candraśekhara lineage.[77]

Date
The period to which the author belonged cannot be determined with accuracy. The references to the nine Nāthasiddhas and to a group of eight metals (aṣṭaloha) imply that it is not an early work.[78]

An anonymous Rasakaumudī
An anonymous *Rasakaumudī*[79] deals with the purification of mercury, a number of

twenty-seven rasayogas[80] and how to administer them, antidotes (viṣaśānti), signs pointing to health (svasthāriṣṭa) and signs pointing to a bad prognosis (ariṣṭa).

The *Rasamañjarī*

The *Rasamañjarī* by Śālinātha[81] is an alchemical and iatrochemical treatise in 867 verses,[82] arranged in twelve chapters (adhyāya).[83] The work is in the form of a conversation between Śiva and Pārvatī.[84]

Contents[85]

Chapter one (rasaśodhanaprakāra; 39 verses) deals with introductory matter (1–4), the praise of mercury (5–8), the teacher and his pupil (9–13), the names and varieties of mercury (14–15), the doṣas of mercury and the disorders arising from them (16–19), and some methods of purifying (śodhana) mercury (20–39).

Chapter two (rasajāraṇamāraṇādi; 64 verses) describes the jāraṇa of several substances by mercury (1–11), several types of māraṇa of mercury (12–16), several methods of preparing rasasindūra (17–41) and rasakarpūra (42–45), mūrchana (46–51), bandha (52–58), and rules concerning the use of mercurial products (59–64).[86]

Chapter three (uparasaśodhanamāraṇa; 101 verses) is about the uparasas (1–3ab); its subjects are the origin of sulphur (3cd–5ab), its varieties (5cd–6), the disorders caused by impure sulphur (7), its purification (8–13), the preparation of gandhakataila (14–15); the varieties, characteristics and properties of diamonds (vajra; 16–21),[87] disorders caused by impure diamonds (22), their purification (23–25ab) and māraṇa (25cd–30), the varieties, properties and māraṇa of vaikrānta (31–34), the varieties of mica (abhraka) and their properties (35–38), the preparation of dhānyābhraka (39–43ab), māraṇa of mica (43cd–56), the śodhana and māraṇa of tāla (57–61), the śodhana of manaḥśilā, rasaka, tuttha, vimala, mākṣika, kāsīsa, kāntapāṣāṇa, varāṭikā, hiṅgula, and śilājatu (62–83), the śodhana of the remaining uparasas (84), the preparation of bhūnāga-, vaikrānta- and abhrakasattva (85–91), the fusing (drāvaṇa) of mica (92), the extraction of various sattvas (93–96), and śodhana and māraṇa of gems (maṇi; 97–101).

Chapter four (viṣalakṣaṇasevāparihāra; 31 verses) describes eighteen plants with poisonous bulbs or tubers (kanda) (1–10), their māraṇa (11–13), the way to employ them medicinally, together with the dosages (14–21), the seven stages (vega) of intoxication (22–25), a mantra preventing intoxication (26) and the way to use it (27–28), prescriptions against poisoning (29–31).

Chapter five (svarṇādyaṣṭadhātuśodhanamāraṇasevana; 71 verses) is concerned with the śodhana and māraṇa of the eight metals: gold (3cd–17ab), silver (17cd–24ab), copper (24cd–36), rājarītī (= pittala) and ghoṣa (= kāṃsya (37), lead and tin (38–48), and iron (49–67); the medicinal properties of the products obtained are described; the chapter ends with the properties of lohakiṭṭa (= maṇḍūra; 68–71).

Chapter six (rasayojanabhakṣaṇa; 307 verses)[88] contains formulae of rasayogas. Chapter seven (rasāyanaguṭikā; 60 verses)[89] is about rasāyana formulae. Chapter eight (netrāñjanakeśarañjana; 28 verses) is devoted to recipes against eye diseases and

premature greyness of the hair. Chapter nine (vīryastambhanādikautūhalanirūpaṇa; 78 verses)[90] describes subjects usually dealt with in Tantric treatises about ṣaṭkarman. Chapter ten (bālatantra; 32 verses) reproduces a *Bālatantra*. Chapter eleven (kālajñāna; 44 verses) is about ariṣṭas. Chapter twelve (chāyāpuruṣalakṣaṇa; 12 verses) describes ariṣṭas connected with one's shadow (chāyā), as taught by Śambhu.

Sources are not referred to.[91] One recipe is ascribed to Nāgārjuna.[92] A *Mālatīmata* is also mentioned.[93]

The *Rasamañjarī* is quoted or referred to in the paribhāṣā pariśiṣṭa of the *Ānandakanda*, the *Āyurvedaprakāśa*, Caturbhuja's commentary on the *Rasahṛdaya*, the *Dhātumāraṇa*,[94] Hariśaraṇānanda's *Kūpīpakvarasanirmāṇavijñāna*, Meghamuni's *Meghavinoda*,[95] Nidhi's *Yogasamuccaya*, the *Pāradasaṃhitā*, *Rasakāmadhenu*, *Rasasaṃgrahasiddhānta* by Govindarāma,[96] *Rasasārāmṛta* by Rāmasena,[97] *Rasāyanasaṃgraha*,[98] *Rasayogasāgara*, *Rasendrasambhava*, *Rasendrasārasaṃgraha* by Gopālakṛṣṇa, Somadevaśarman's commentary on the *Āyurvedaprakāśa*, the *Yogaratnākara*,[99] the *Yogataraṅgiṇī*[100] and *Bṛhadyogataraṅgiṇī*[101] of Trimalla, and the *Sukhabodha* of Vaidyarāja.

Commentaries on the *Rasamañjarī* were written by Harinābha,[102] Rāmanātha,[103] and Samaratha.

Samaratha was a Śvetāmbara Jain of the Sāgaracandrasūri branch of the Kharataragaccha, and a pupil of Matiratna or Sumatiratna. He lived in Bīkāner. Samaratha's name was changed into Samayamāṇikya after his ordination. Samaratha composed his Hindī commentary on the *Rasamañjarī* in A.D. 1707. He also wrote a Sanskrit commentary on Keśavadāśa's *Rasikapriya*, composed in Brajbhāṣā; this commentary was completed in A.D. 1698.[104]

Special features

Eight doṣas of mercury are enumerated: nāga, vaṅga, agni, cāñcalya, asahyatva, viṣa, giri and mala; the disorders they bring about are jāḍya, kuṣṭha, mahādāha, vīryanāśa, mūrchanā, mṛtyu, sphoṭa and rogapuñja (1.17–18). A second series of five doṣas, consisting of śiloccaya, mṛdbhava, atimalina, nāga and vaṅga leads to kuṣṭha, jāḍya, atyantavāta, galagaṇḍa and gulma (1.19).[105] The uparasas distinguished are gandhaka, vajra, vaikrānta, gagana (= abhraka), tālaka, śilā, kharpara, śikhituttha, vimalā, hemamākṣika, kāsīsa, kāntapāṣāṇa, varāṭa, añjana, hiṅgula, kaṅkuṣṭha, śaṅkha, bhūnāga, ṭaṅkaṇa, and śilājatu (3.1–3ab).[106] Four varieties of sulphur (gandhaka) are mentioned: red, yellow, white and black, useful for making gold (hemakriyā), for rasāyana purposes and in ointments on ulcers respectively; the black variety is the best one (3.5–6). Diamonds (vajra) are white, red, yellow and black; these varieties are called brāhmaṇa, kṣatriya, vaiśya and śūdra; they are suitable to rasāyana purposes, to curing diseases, to vāda (i.e., alchemy) and to vayaḥstambha (i.e., rasāyana) purposes; diamonds are also male, female or neuter and fit for vedha and rasabandha, dehasiddhi, and krāmaṇa (3.16–21). Eight types of vaikrānta are mentioned: white, red, yellow, blue, grey (pārāvatacchavi), śyāmala, black, and karbura (3.32).[107]

The usual four varieties of mica (abhraka) are enumerated: pināka, dardura, nāga and vajra (3.35). Poisonous plants are eighteen in number: kālakūṭa, mayūrākhya,

binduka, saktuka, vāluka, vatsanābha, śaṅkhanābha, sumaṅgala, śṛṅgī, markaṭaka, musta, kardama, puṣkara, śikhī, hāridra, harita, cakra, and hālāhala (4.1–3ab). Eight stages of poisoning are distinguished, characterized by udvega, vepathu, ghoradāha, patana, phena, vikalatā, jaḍatā, and mṛtyu (death) (4.23–25).

Chapter five does not mention zinc as one of the metals.

The majority of the formulae of chapter six are well known and found in many rasaśāstra texts. Some of them may be rare or even restricted to the *Rasamañjarī*.[108]

The rasāyana formulae of chapter seven are partly frequent, partly rare or peculiar to the author of the *Rasamañjarī*.[109]

Chapter nine is a collection of prescriptions; they are meant to prevent or delay ejaculation (vīryastambha; 1–11), to increase the size of the penis (12), to cause impotence (13–15), to cure it (16–17), to increase potency (21–24), and to cure a series of diseases (25–29). The remaining part of the chapter contains recipes that ensure impregnation (30), that are suitable to vaśīkaraṇa (31–37ab), to tightening of the vagina (37c–f), removal of the pubic hair (38–39), etc. (40–78).

Chapter ten contains a *Bālatantra*, related to Rāvaṇa's *Kumāratantra* and other such texts.[110] It enumerates sixteen Yoginīs who attack a child on the first day, month or year of its life, the second day, etc., up to the sixteenth. The symptoms of the illnesses are mentioned, together with the rituals that are appropriate to appease the beings causing them.

The names of these malignant beings are: Nandā, Āryā, Pūtanā, Bhīṣaṇāsyā, Biḍālī, Śakunī, Śuṣkā, Jṛmbhikā, Acintyā, Kāpālikā, Lipsitā (or Nandikā), Pītalī, Bhadrakālī, Tārā, Śarvarī (or Sumukhī), and Kumārī.

Some noteworthy terms employed in the *Rasamañjarī* are āgala (2.26), pāṣāṇapaṭikā (2.25),[111] and sphaṭikī (2.24).[112]

The eight kakāras consist of kūṣmāṇḍa, karkaṭī, kaliṅga, kāravellaka, kusumbhika, karkoṭī, kadalī, and kākamācikā (2.59–60).

The author

Śālinātha was a son of Vaidyanātha.[113]

Date

The earliest MS of the *Rasamañjarī* was completed in A.D. 1546/47,[114] which indicates that the *Rasamañjarī* is earlier than the middle of the sixteenth century.[115] The reference to the author of the *Rasamañjarī* in Gopālakṛṣṇa's *Rasendrasārasaṃgraha* makes it possible to push back the terminus ante quem to a period anterior to the last quarter of the fifteenth century. The upper limit cannot be ascertained.[116]

The *Rasamitra*

The *Rasamitra* by Tryambakanātha Śarmā[117] is a treatise that lays emphasis on the medicinal uses of alchemical products.

Contents

The *Rasamitra* is a work in six chapters (raśmi), dealing with generalities and technical terms (1), mercury (2), the mahārasas and uparasas (3), the dhātus (4), the ratnas and uparatnas (5), the viṣas and upaviṣas (6).

Chapter one (sāmānyavijñānīya) describes, after a maṅgala to Śiva and some introductory verses, the subjects of rasaśāstra, the teacher and his student, the laboratory (rasaśālā; 4–6), technical terms (paribhāṣā; 7–12), weights and measures (parimāṇa; 13–14),[118] the yantras (15–24),[119] and the puṭas (24–28).[120] Chapter two (rasavijñānīya) gives an account of mercury and its doṣas (29–35), its purification (36–37), the first eight saṃskāras (37–44), the preparation of mercury from cinnabar (44), jāraṇā and mūrchanā (44–46), the preparation of mugdharasa, rasapuṣpa and rasakarpūra (47–48), some formulae (49–56),[121] and some rules concerning the use of mercurial medicines (57–58). Chapter three (uparasavijñānīya) is about the mahārasas, their names, characteristics, purification, sometimes their killing, the properties and actions of the products obtained, their uses, dangers involved in their use, and the treatment of disorders caused by the use of impure products (59–84); the second part of the chapter (84–95) is devoted to a description of the uparasas, their purification and the neutralization of the effects of impurities; the third and last part is about the sādhāraṇarasas (95–105). Chapter four (dhātuvijñānīya; 106–130) is concerned with the dhātus, their purification, killing, and the medicinal properties of the products obtained. Chapter five (ratnoparatnavijñānīya; 131–177) gives a similar exposition on the ratnas, uparatnas and some other stones. Chapter six (viṣopaviṣavijñānīya) describes the viṣas, their purification, and their uses in medicine (178–208); the second part of the chapter is about the upaviṣas (208–244) and animal poisons, their purification and their uses (245–248).

Sources referred to in the Sanskrit text are the *Rasaratnasamuccaya* (209), *Rasasaṃketakalikā* (208), *Rasasāra* (281), and *Rasendracūḍāmaṇi* (282).

Special features

Twelve doṣas of mercury are distinguished: three naisargikadoṣas (natural blemishes): viṣa, vahni, mala; two yaugikadoṣas (adulterants): nāga (lead) and vaṅga (tin); seven aupādhikadoṣas or kañcukas (blemishes due to the environment): parpaṭī (bhūmijā), pāṭalī (girijā), bhedī (vārijā), drāvī and malakarī (nāgajā), andhakārī and dhvāṅkṣī (vaṅgajā) (29–35). The eight saṃskāras described are svedana, mardana, mūrchana, utthāpana, pātana, bodhana, niyāmana, and dīpana (37–44). Six types of mūrchanā are mentioned (46).[122]

The group of mahārasas consists of abhraka, vaikrānta, mākṣīka, vimala, adrija (= śilājatu), sasyaka, capala, and rasaka (59).[123] The group of uparasas is composed of gandhaka, gairika, kāsīsa, kāṅkṣī (= tuvarī), (hari)tāla, (manaḥ)śilā, añjana, and kaṅkuṣṭha (84). The group of sādhāraṇarasas is made up of kampilla, gaurīpāṣāṇa, navasādara, kaparda, vahnijāra (= agnijāra), girisindūra, hiṅgula, and mṛddāraśṛṅga (95). The seven dhātus are gold, silver, copper, iron, zinc, tin and lead (106); three alloys are mentioned: pittala, kāṃsya and varta (106). Three varieties of iron are referred to: muṇḍa, tīkṣṇa and kānta (117).

Nine gems (ratna) are described: māṇikya (ruby), muktā (pearl), vidruma (coral),

tārkṣya (emerald), puṣpa (topaz), bhidura (diamond), nīla (sapphire), gomedaka (zircon), and vidūraka (cat's eye) (131). The six minor gems (uparatna or kṣudraratna) are: vaikrānta (Irish diamond), sūryakānta (sunstone), candrakānta (moonstone), nṛpopala (lazis lazuli), peroja (turquoise), and sphaṭika (rock crystal) (157). Other stones and substances described are: vyomāśman or saṅgayaśava (jade), pālaṅka (onyx), rudhira (carnelian), pūtikā (peridote), sugandhika (spinel), turmulī (tourmaline), tṛṇakānta (amber), sudhā (calcium), khaṭikā (chalk), dugdhapāṣāṇa (talc), godantī (gypsum), śṛṅga (horn), kauśeyāśman (asbestos), nāgāśman (serpentine), and badarāśman or aśmabhid (a calcium silicate) (163–177).

The chapter on poisons mentions five mahāviṣas: saktuka, kālakūṭa, sitamusta, śṛṅgī, and kṛṣṇaviṣa (181); series of viṣas from another treatise, from the *Rasasāra*, and from the *Rasendracūḍāmaṇi* are quoted (181–182). Vegetable poisons described are: saktuka, mustaka, śṛṅgī, saikata, sarṣapa, kūrma, dārvika, vatsanābha, kālakūṭa, meṣaśṛṅgī, hālāhala, dārdura, karkoṭa, mūlaka, granthi, hāridra, raktaśṛṅgī, and pradīpana (183–192). The substances belonging to the group of upaviṣas are quoted from the *Rasaṃketakalikā*, some other treatise, and the *Rasaratnasamuccaya*. The author of the *Rasamitra* distinguishes the following upaviṣas: jayapāla, arka, dhattūra, viṣatinduka, guñjā, sehuṇḍa, lāṅgalī, karavīra, ahiphena, vijayā, and bhallātaka oil (209); these poisonous substances are described; tridhārā (210) and nīlinī (237–238) are added.

The author and the date of the work

The *Rasamitra* is a twentieth-century work written by the author when he was a reader in Dravyaguṇa of the Banāras Hindu University.

Rasāmṛta

Rasāmṛta by Vaidya Yādavjī Trikamjī Ācārya.[124]

Contents[125]

This modern compilation consists of nine chapters (adhyāya) and nine appendices (pariśiṣṭa).

Chapter one (rasavijñānīya; 58 verses) gives an account of mercury, its impurities (doṣa),[126] eight saṃskāras, the preparation of mercury from cinnabar (hiṅgula), some rasayogas, cinnabar, and girisindūra.[127] Chapter two (gandhakavijñānīya; 5 verses) describes sulphur, its purification, and a recipe. Chapter three (lohavijñānīya; 186 verses) is about the dhātus:[128] suvarṇa (gold; 1–24), rajata (silver; 25–34ab), tāmra (copper; 34cd–47), pittala (brass; 48–53), kāṃsya (bronze; 54–56), mākṣīka (57–72ab), tuttha (72cd–82), nīlakalka (in Hindī),[129] vaṅga (tin; 83–101ab), nāga (lead; 101cd–108ab), sindūra (108cd–109), mṛddāraśṛṅga (110–112), safedā (in Hindī),[130] sauvīrāñjana (113–115ab), yaśada (zinc; 115cd–120ab), puṣpāñjana (120cd–121), rasaka (122–128), loha (iron; 129–147) and maṇḍūra (148–151ab), vimala (151cd–156), kāśīśa (157–164ab), gairika (164cd–168), gile armanī (in Hindī),[131] gile makhtūm (in Hindī),[132] abhraka (169–182ab), and ayaskānta (182cd–186). Chapter four (mallavijñānīya; 15 verses) is concerned with malla or gaurīpāṣāṇa (1–4ab), haritāla (4cd–11), and manaḥśilā (12–15). Chapter five (sudhāvijñānīya; 9 verses) describes sudhā (1–4ab),[133] khaṭikā (4cd–5ab),[134] godantī (5cd–9),[135] and safed surmā (in Hindī).[136] Chapter six (sikatāvijñānīya; 5 verses) is about sikatā (1–4), dugdhapāṣāṇa (5),[137] kauśeyāśman,[138] nāgapāṣāṇa,[139] and aśmabhid (in Hindī).[140] Chapter seven (lavaṇakṣāravijñānīya; 28 verses) is devoted to salts (1–17: saindhava, sāmudra, romaka, viḍa, sauvarcala, and audbhida lavaṇa) and alkalis (18–28: yavakṣāra, svarjikā, ṭaṅkaṇa, sphaṭikā,[141] parpaṭakṣāra[142] and saurakṣāra).[143] Chapter eight (ratnavijñānīya; 24 verses) is concerned with the ratnas: māṇikya (1), nīla (2), puṣparāga (3), gomeda (4), vaiḍūrya (5), tārkṣya (6), and vajra (7–9), their purification and killing (10–12), and the uparatnas: rājāvarta (13–15), saṅgayaśab[144] (in Hindī), akīka (16),[145] sphaṭika (17), sūryakānta (18), candrakānta (19), peroja (20),[146] vaikrānta (21–24), and tṛṇakāntamaṇi[147] (in Hindī). Chapter nine (rasayogavijñānīyayoga; 222 verses) consists of sixty-six formulae.[148] The pariśiṣṭas are about the preparation of bhasman and about puṭa (1; in Hindī), about capala (2), śilājatu (3), mākṣīka and vimala (4; in Hindī), rasāñjana (5; in Hindī), the doṣas of impure dhātus (6), sattvapātana (7), and the purification of some viṣas (8). The last pariśiṣṭa (9) consists of a list of substances which are important in rasaśāstra and mentioned in the *Caraka-* and *Suśrutasaṃhitā* (references are given).

The *Rasāmṛta* is restricted to iatrochemistry, which explains that only the first eight saṃskāras of mercury are dealt with. Anuvāsana is omitted.

The sources are listed in the author's prastāvanā and often indicated in the text of the treatise.

These sources consist of: *Aṣṭāṅgasaṃgraha*, *Āyurvedaprakāśa*, *Bhaiṣajyaratnāvalī*, *Bhāratīyarasaśāstra* by Vāman Gaṇeś Desāī,[149] *Carakasaṃhitā*, *Lohasarvasva*, *Paribhāṣākhaṇḍa*,[150] *Rasahṛdaya*, *Rasapaddhati*, *Rasaprakāśasudhākara*, *Rasaratnasamuccaya*, *Rasasāra*, *Rasataraṅgiṇī*, *Rasendracūḍāmaṇi*, *Rasendrasārasaṃgraha*, *Ratnapradīpa* by Mahādeva Lakṣmaṇa Khāṃbeṭe,[151] *Suśrutasaṃhitā*, *Yogaratnākara*, and *Yūnānī Dravyaguṇavijñāna* by Daljīt Siṃha.[152]

Sources not listed by the author, but referred to in his treatise, are: *Bhāvaprakāśa* (6.2ab), *Dhanvantarīyanighaṇṭu* (6.1; 7.4–5ab and 20), *Gadanigraha* (6.2cd–4), *Rājanighaṇṭu* (3.166cd–167ab; 7.6cd–7ab), *Rasārṇava* (3.64cd–65ab, 122cd–123), *Rasasaṃketakalikā* (9.55–56), *Śārṅgadharasaṃhitā* (9.151–158ab), *Siddhabhaiṣajyamañjūṣā* (9.132–134), *Siddhabheṣajamaṇimālā* (1.46; 4.8; 8.16; 9.183–185), and *Vaidyajīvana* (9.167).

The *Rasāmṛta* is quoted in the commentaries on the *Āyurvedaprakāśa* of Gulrājśarmamiśra and Somadevaśarman; it is one of the sources of the *Bheṣajasaṃhitā*.

Chapter 7
Rasapaddhati to *Rasaratnadīpikā*

Rasapaddhati

The *Rasapaddhati* by Bindu[1] is a short work in 231 verses[2] on alchemy and iatrochemistry.

Contents[3]

The *Rasapaddhati* can conveniently be divided into two sections: 12–132, devoted to alchemy, and 133–231, devoted to formulae against diseases.

The maṅgala is addressed to Śiva as Ardhanārīnaṭeśvara.[4] Three systems of therapy are distinguished, hierarchically arranged: daivī cikitsā, the superior system, which employs well-prepared rasas; mānavī cikitsā, treatment by means of vegetable preparations; āsurī cikitsā, the inferior method, making use of surgical procedures (2–3).[5] The seven doṣas of mercury are enumerated: nāga, vaṅga, viṣa, mala, capalatā, vahnija, and girija, and the disorders caused by them (4). The eight saṃskāras which are necessary for medical purposes are listed (5) and described (6–14), followed by some alternatives for those without the means to carry them out (15–17). The preparation of mercury from cinnabar is discussed (18).

Subjects dealt with in the next verses are: the purification of the metals (loha; 19–20); the preparation of the bhasman of gold (21–23ab), silver (23cd), iron (24–25), copper (26–30), lead (31–32ab), tin (32cd–34), and the alloys (35); the medicinal properties of these bhasmans (36–37). Verses 38–54 are about the six mahārasas: vaikrānta, gagana (= abhraka), śilāja (= śilājatu), capala, tāpīja (= vimalā and mākṣika), and tuttha. Verses 55–58 are concerned with the uparasas: gandha, (hari)tāla and manaḥśilā. The saṃskāras which are necessary for vedha (transmutation) are described in verses 59–60ab (jāraṇā), 60cd–62ab (cāraṇā), 62cd–63 (sāraṇā), 64–66 (mukhabandha), and 67–74 (krāmaṇa and vedha). Verses 75–79 deal with the processes to which mercury obtained from cinnabar has to be subjected in order to attain vedha, verses 80–82 with mukhakaraṇa by means of jāraṇā of sulphur, verses 83–87 with ways of preparing rasasindūra and rasakarpūra.

Relatively much attention is given to the gems (88–132). Nine gems are enumerated: vajra, vidruma, mauktika, marakata, vaidūrya, gomedaka, māṇikya, harinīla, and puṣpadṛṣad (= puṣparāga) (88); their connections with the nine grahas are explained (89–90). The origin of diamonds is described (91–95), their varieties are dealt with (96–99ab), their blemishes (99cd–102), their properties (103), the regions where they are found (104),[6] their weights and prices (105–112),[7] and their examination (113–

116). Pearls (mauktika) and their varieties are elaborately described (117–132); eight types are distinguished, originating respectively from elephants (karin), boars (kiri), bamboos (tvaksāra), fishes (matsya), clouds (ambumuc), shells (kambu), serpents (urogati), and oysters (śukti).[8]

Verses on the treatment of raktapitta (133–137ab), kāsa, śvāsa and hikkā (137cd–139), rājayakṣman (140–147ab), and some other diseases (147cd–149) follow. The last part of the treatise (150–231) contains formulae of rasayogas, mainly to be prescribed against fevers.

Sources are not referred to.

Authorities mentioned are: Agastya (147), Ātreyasūri (193),[9] Bhāluki (54),[10] Candraśikhara (199),[11] Nāgārjuna (155),[12] Vasiṣṭha (147), and Viṣṇu (160).[13]

The *Rasapaddhati* is quoted or referred to in the paribhāṣā pariśiṣṭa of the *Ānandakanda*, *Āyurvedābdhisāra*, *Āyurvedaprakāśa*, *Bṛhadrasarājasundara*, *Dhātumāraṇa*,[14] Gulrājśarmamiśra's commentary on the *Āyurvedaprakāśa*, Hariśaraṇānanda's *Kūpīpakvarasanirmāṇavijñāna*, Hazārīlāl Sukul's commentary on the *Rasaratnasamuccaya*, *Pāradasaṃhitā*, *Rasakāmadhenu*, *Rasasiddhiprakāśa*,[15] the commentary on the *Rasataraṅgiṇī*, *Rasatattvavivecana*, *Rasavidyāmahārṇava*, *Rasayogasāgara*, *Rasendrapurāṇa*, Somadevaśarman's commentary on the *Āyurvedaprakāśa*, and Yādavjī Trikamji's *Rasāmṛta*.

Bindu is quoted in Hazārīlāl Sukul's commentary on the *Rasaratnasamuccaya*. The Rasapaddhatikṛt is quoted in the commentary on the *Āyurvedābdhisāra*.

Special features

Anuvāsana is not described as a separate saṃskāra.[16]

The metals enumerated are gold, silver, iron, copper, lead (uraga), tin (raṅga), ghana (= kāṃsya), vartula,[17] and ghoṣa;[18] the last three items of this series are called upaloha; iron is of three types: kānta, tīkṣṇa and muṇḍa (19). Zinc is not mentioned.[19] The term dhātu is not employed for the metals.

The mahārasas are only six in number (38); the inclusion of capala and tuttha is noteworthy. Vaikrānta is of seven types, but only the black variety, used in alchemical operations, is taken into consideration (38).[20] The usual four varieties of mica are described (40). Śilājatu is of two types: acalodbhūta[21] and uṣodbhava[22] (44). Capala is of four varieties: white, black, yellow and red (46).[23] Tāpīja is of two types: vimala[24] and mākṣika. Vimala is of three varieties: hema-, tāra- and kāṃsyavimala[25] (48). Mākṣika is of two varieties: svarṇa- and rajatamākṣika; some are said to distinguish a third variety, called kāṃsyamākṣika (49). Tuttha is of two varieties: mayūra- and kharparatuttha (51). The uparasas are only three in number: gandhaka, haritāla and manaḥśilā (55). Three varieties of sulphur (gandhaka) are described: yellow, red and white;[26] the white variety is sometimes called khaṭī;[27] names of the yellow variety are āmalakacchavi, dṛṣadgandhaka and lavaṇaka (55). The two usual varieties of haritāla are mentioned: pattrin and piṇḍa (57). Manaḥśilā is of two varieties: śyāmāṅgī and kaṇavīrikā (58).[28]

The list of saṃskāras necessary to achieve vedha is short (59–74); mukhabandha is regarded as a distinct saṃskāra; the two types of druti are not mentioned.

The five blemishes of diamonds are: bindu, kākapada, yava, mala and rekhā

(99–102ab).[29] Eight regions are mentioned where diamond mines (khani) are or were found: Kośala and Kāliṅga in the Kṛtayuga, Vaṅga and Mālava in the Tretāyuga, Saurāṣṭra and Maṇipuṇḍraka in the Dvāparayuga, Sopāra[30] and Vajrākara[31] in the Kaliyuga.[32] Pearl oysters are said to be found in the seas near Ādāya, Barbara,[33] Āralāṭa, Siṃhala, Ūrmija and Pārasika (129).

The verses on the treatment of various diseases mention syphilis (phiraṅgavātajanitasphoṭa and phiraṅgābhidhavāta) and rasakarpūra, the drug preferentially prescribed against this disease (149).

Some of the rasayogas in the last part of the *Rasapaddhati* are not found in other treatises; examples are ātaṅkāntakarasa (154cd–155) and ekasūteśvararasa (173–174).[34] The gaurīyantra is referred to (71; 80). A substance called lohakharpara is mentioned (13).[35]

Noteworthy plant names are jambha (18, 21, 23),[36] jambhala (17),[37] mānavī (8), nīravānīra (24),[38] śitidhūrta (12), and sṛṣṭyambujā (8).

The author

Bindu mentions his name in the introductory verse.

Date

The references to syphilis and its treatment with rasakarpūra indicate that the *Rasapaddhati* is later than the *Bhāvaprakāśa* (second half sixteenth century), which describes phiraṅgaroga and its therapy for the first time in Indian medical literature. The *Rasapaddhati* may date from the first half of the seventeenth century, because it is one of the sources of the *Āyurvedaprakāśa* and since the earliest MS[39] was completed in A.D. 1664.[40]

Commentary

A commentary on the *Rasapaddhati*, reaching up to verse 186, was written by Mahādeva.

Authorities and works quoted or referred to in the commentary are: Amara (1, 6, 7, 8, 89, 90, 98, 104, 150, 152–153, 153–154), *Aṣṭāṅgahṛdaya* (1), Caraka (45cd), *Rājamṛgāṅka* (87), *Rasarājalakṣmī* (83), *Rasaratnākara* (6, 7, 8, 9, 10, 11, 13, 14, 58, 59–60ab, 61–62ab, 69–74, 80, 85–87), *Rasaratnasamuccaya* (9, 117–122, 129–132), *Rasavāgbhaṭṭa* (81–82), Somanātha (29–30), and Vāgbhaṭa (44–45ab, 45cd).

Many quotations are not referred to their source.[41] Mahādeva quotes (ad 85–87) a list of divyauṣadhis from a source not mentioned by name.[42] He enumerates the following uparatnas (ad 88): vaikrānta, sūryakānta, rājāvarta, lāla,[43] and peroja.

The ṭīkā of the *Rasapaddhati* and its author are quoted in the commentaries of Gulrājśarmamiśra and Somadevaśarman on the *Āyurvedaprakāśa* and in the *Rasakāmadhenu*. The commentary on the *Rasapaddhati* is one of the sources of Hariśaraṇānanda's *Kūpīpakvarasanirmāṇavijñāna* and Mādhava's *Āyurvedaprakāśa*. Mahādeva is quoted in Hazārīlāl Sukul's commentary on the *Rasaratnasamuccaya*.

Mahādeva is regarded as the son of Bindu.[44] Both father and son may have been residents of Mahārāṣṭra.[45] Mahādeva is later than Nityanātha, who wrote the

Rasaratnākara, and Vāgbhaṭa, to whom the *Rasaratnasamuccaya* is attributed, because the works of these authors are quoted by him; he is also posterior to Bindu, on whose treatise he commented. He is earlier than Mādhava, the author of the *Āyurvedaprakāśa*, who used Mahādeva's work as one of his sources. This evidence establishes that Mahādeva lived, like Bindu, in the first half of the seventeenth century.

Rasapradīpa

An anonymous *Rasapradīpa*[46] in 282 verses describes both a number of iatrochemical formulae and a series of alchemical procedures.

Subjects dealt with are: a definition of rasāyana (1); fifty formulae (2–163);[47] the preparation of a bhasman of gold, silver, copper, brass (pittala), bronze (kāṃsya), lead, and tin (164–199); four methods of lohamāraṇa (200–207); māraṇa of the seven metals (dhātu; 208);[48] an enumeration of the seven upadhātus: mākṣika, tutthaka, abhra, nīlāñjana, (manaḥ)śilā, ālaka (= haritāla), and rasaka (209);[49] śodhana and māraṇa of the upadhātus, and of gairī, kāsīsa, ṭaṅkaṇa, varāṭikā, tuvarī, śaṅkha, and kaṅkuṣṭha (210–228); śodhana of all the dhātus (229–231); śodhana and māraṇa of hīraka (diamond), vaikrānta, maṇi, muktā (pearl), and pravāla (coral) (232–243); śodhana and māraṇa of all the ratnas (244); the śodhana of śilājatu (245–250); the preparation of maṇḍūrabhasman (251–253) and two varieties of kṣāra (cūrṇābha or pratisārya and peya) (254–256); formulae of rasayogas (257–277); dietary and other rules (278–282).

Sources are not mentioned. One of the formulae (144–148: vyādhiharasūtanirmāṇavidhi) is ascribed to Pūjyapāda. The date of composition and the author are unknown.

Rasaprakāśasudhākara

The *Rasaprakāśasudhākara* by Yaśodhara[50] is a treatise devoted to alchemy and iatrochemistry.

Contents[51]

The *Rasaprakāśasudhākara*, entirely written in verse, consists of 1,286 verses, arranged in thirteen chapters (adhyāya).

Chapter one (aṣṭādaśarasasaṃskāranirūpaṇa; 164 verses) opens with a maṅgala of four verses in praise of Harihara, Śāradā, Gaṇapati, and mercury. These stanzas are followed by a table of contents (5–12). Subjects dealt with in the next verses are: the origin of mercury and its varieties (13–21), the eighteen saṃskāras (22–25ab), the five doṣas (25cd–26) and the seven kañcukas (27–30ab) of mercury. The remaining part of chapter one gives an account of the eighteen saṃskāras: svedana (30cd–35), mardana (36–41), mūrchana (42–45ab), utthāpana (45cd–47), the three varieties of pātana (48–62ab), rodhana (62cd–65), niyamana (66–67ab), dīpana (67cd–78), grāsamāna (79–83),[52] cāraṇa (85–93ab), garbhadruti (93cd–97ab), bāhyadruti (97cd–101ab), jāraṇa (101cd–119), rañjana (120–127), sāraṇa (128–140ab), krāmaṇa (140cd–146ab), vedhana (146cd–156), and sevana (157–164).

Chapter two (caturvidharasabandhana; 109 verses) enumerates four types of

bandha of mercury:[53] jalaukā- or pakvabandha, khoṭa(ka) or piṣṭistambha, pāṭaka[54] or parpaṭikābandha, and bhasmabandha (2–3). These bandhas may be brought about by means of mūlikā (substances of vegetable origin), maṇi (gems), svarṇaka (gold), and lead (nāga) or tin (vaṅga); bandha by means of gold is called dhātubandha;[55] the merits of these methods decrease in the mentioned order (4–5). A fifth method, drutibandha, is regarded as superior, in particular if abhradruti is employed in the process (6). Five varieties of mūlikābandha are described (7–35), two types of maṇibandha (employing vajrasattva and vajrabhasman; 36–50ab), three types of drutibandha (employing abhrakadruti, hemadruti and vajradruti; 50cd–70ab), and five varieties of dhātubandha (employing gold, silver, tutthaka, tin, and a mixture of substances; 70cd–107).

Chapter three (sūtabhasmakathana; 64 verses) is concerned with the preparation of mercurial ashes (sūtabhasman), four varieties of which are distinguished: white, black, yellow, and red (1). The chapter describes the preparation of mercury from cinnabar (2–5), the preparation of rasakarpūra (6–10ab), udayabhāskararasa (10cd–14),[56] raktarasa (15–18), and rasamāṇikya (19–22), the jāraṇa of sulphur (23–26), the preparation of rasapoṭṭalī (27–31ab), kṛṣṇabhasman (the black type; 31cd–35), śuddharasabhasman (36–38), rasaparpaṭī (two varieties; 39–58ab),[57] and some more varieties of rasabhasman (58cd–63).

Chapter four (dhātuśodhanamāraṇanirūpaṇa; 120 verses) is concerned with the purification and killing of the metals (dhātu or loha). The metals are said to be eight in number, but nine of them are enumerated: gold and silver, called śuddhaloha; copper and iron, called aśmasāra; lead and tin, called pūtiloha; saurāṣṭra (= kāṃsya), rīti (= pittala) and vartaka, the three alloys (saṃmiśraloha) (2–4ab). Various methods of purifying the metals and killing them are described. Two varieties of gold are distinguished, rasaja and khanisaṃbhava, although three more varieties are referred to (4cd–5ab). Silver is of three types: khanija, sahaja and kṛtrima (21), copper of two types: nepāla and mlecchadeśaja (35cd). Iron is of three types: kānta, tīkṣṇavara and muṇḍa; four varieties of kāntaloha are described: romaka, bhrāmaka, cumbaka and drāvaka (57–62). Tin is of two types: khura and miśra (79ab). Two types of pittala are described: rītikā and kākatuṇḍikā (105cd–106). Kāṃsya is characterized as an alloy of copper (ravi) and tin (trapu) in a ratio of four to one (112cd–113ab), vartaloha as an alloy of iron, kāṃsya, copper (arka) and rīti (= pittala) (116ab); viḍaloha is mentioned as a synonym of vartaloha (116cd).

Chapter five (mahārasanirūpaṇa; 132 verses) is about the mahārasas, their names and varieties, their purification, killing and sattvapātana (the extraction of their essences). Eight mahārasas are listed: gagana (= abhraka), rasaka, tāpya (= mākṣika), vaikrānta, vimala, sasyaka,[58] śailasaṃbhūta (= śilājatu) and rājāvartaka (2–3ab). Four varieties of mica (abhraka) are described: vajra, pināka, nāga and maṇḍūka (3cd–7). Vaikrānta is of eight varieties (62); vimala is of three types (80–81ab). Two varieties of śilājatu are distinguished: gomūtra and ghanasāraka (90cd);[59] a third one is added, called karpūraśilājatu, which differs from the other varieties because its killing and the extraction of its essence are not described by the experts (104–105).[60] Two varieties of rasaka are mentioned: kāravella and dardura[61] (106),[62] and two varieties of mākṣika: rukmamākṣīka (= suvarṇamākṣika) and tāpya (121–122).[63]

Chapter six (91 verses) deals with the eight uparasas, their varieties, properties, purification and essences (sattva). The eight uparasas are: tālaka, tuvarī, gandha (sulphur), kaṅkuṣṭha, kunaṭī (= manaḥśilā), gairika, añjana and kāsīsa (1). Two varieties of tālaka are distinguished: dalākhya and aśmasaṃjñaka (2),[64] two varieties of saurāṣṭrī (= tuvarī): pītikā and phullikā (11cd–13),[65] three varieties of manaḥśilā: śyāmā, raktā[66] and khaṇḍikā (17–18), five varieties of añjana: sauvīra, rasāñjana, sroto'ñjana, puṣpāñjana and nīlāñjana (23),[67] four varieties of gandhaka (sulphur): śveta, pīta or amlasāraka, rakta or śukatuṇḍa, and kṛṣṇa (29cd–32),[68] four varieties of kaṅkuṣṭha: nalika, reṇuka, the excrements of a female elephant that has just brought forth (sadyaḥprasūta), and the nāla (umbilical cord) of a horse (54–58ab),[69] two varieties of kāsīsa: saikata and puṣpākhya (63–65ab),[70] and two varieties of gairika: pāṣāṇagairika and svarṇagairika (70–71ab).[71] The same chapter is concerned with navasāra or cullikā (74–75), biḍa (76ab), three varieties of varāṭikā, differing in weight (76cd–80), agnijāra (81–82), girisindūra (83–84), two varieties of cinnabar (darada): śukatuṇḍa or carmāra and haṃsapāda (85–89ab), and, finally, mṛddāraśṛṅgaka (89cd–90).

Chapter seven (66 verses) describes the precious and semi-precious stones (ratna), their varieties, qualities and defects;[72] the purification and killing of diamonds are dealt with, as well as the purification and druti of all the gems mentioned. The ratnas described in chapter seven are: māṇikya (ruby) and its two varieties, called padmarāga and nīlagandhi (3–7), mauktika (pearl; 8–10), vidruma (coral; 11–13), tārkṣya (emerald; 14–16),[73] puṣpaka or puṣparāga (topaz; 17–19), vajra (diamond) and its varieties (20–27), nīla (sapphire; 45cd–49),[74] gomeda (50–53), and vaidūrya (54–56).

Chapter eight (śatarasanirūpaṇa; 276 verses), the longest, contains 103 formulae of rasayogas, to be employed against various diseases.

Chapter nine (divyauṣadhyādinirūpaṇa; 39 verses) contains lists of the sixty-four divyauṣadhis (1–12ab), sixty-eight rasauṣadhis (12cd–22ab), sixty-eight mahauṣadhis (22cd–30ab), and sixty-eight rasādhikamahauṣadhis (30cd–39).

Chapter ten (yantrādinirūpaṇa; 54 verses) contains a list of the names of forty yantras:[75] adhaḥpātanaka, antarālikasaṃjñika, bhairava, bhasmayantra, bhūdharābhidha,[76] cipiṭākhya, ḍamaruka, devāhvaya, ḍhekyākhya, dhūpayantra, dīpikāhvaya, dolā, gandhapiṣṭakayantraka, garbhayantra, ghāṇikāyantra, ghaṭīyantra,[77] grastāhvaya, guhya, haṃsapākābhidha,[78] iṣṭikāyantraka, jalayantraka, khalva, kinnara, koṣṭhikākhya, kuṇḍasaṃjña, kūpīyantra, lavaṇa(yantra), nābhiyantra, nigaḍa, palabhalīyantra, pālikākhya, pātāla,[79] sāraṇāyantraka, somānala, sthālīyantra, tiryakpātanaka, tulābhidha, ūrdhvapātanaka, vālukāyantraka, and vidyādhara (2–8).[80]

This list is followed by a verse with the synonyms of mūṣā (9–10ab) and descriptions of various types of mūṣā:[81] yoga-, gāra-, vara-, varṇa-, rūpya-, biḍa-, vajra-, vṛntāka-, gostanī-, malla-, pakva-, mahā-, mañjūṣa-, garbha-, and muśalamūṣā (10cd–28). The chapter continues with descriptions of a number of types of koṣṭhikā: aṅgāra-, pātāla-, gāra-, and tiryakpradhamanakoṣṭhikā (29–40). It ends with the characteristics of various types of puṭa: mahā-, gaja-, vārāha-, kukkuṭa-, kapota-, govara-, mṛdbhāṇḍa-, vālukā-, bhūdhara-, and lāvakapuṭa (41–54).

Chapter eleven (dhātukautukanirūpaṇa; 135 verses) is mainly concerned with auri- and argentifaction; eighteen ways of making artificial gold (hemakriyā) and

seventeen ways of making artificial silver (tārakriyā) are described, as well as some methods to improve the grade of artificial gold (varṇotkarṣakriyā). Additional subjects are the making of artifical pearls, increasing the size of small pearls, and the making of artificial coral.

Chapter twelve (vājīkaraṇa; 20 verses) contains aphrodisiac formulae.

Chapter thirteen (śukra- or vīryastambha; 16 verses) contains recipes that suppress ejaculation (1–13), followed by some concluding verses.

Authorities and works referred to are: Bhairava (7.26; 8.120), *Devīśāstra* (1.27; 2. 100),[82] Manthānabhairava (8.173–174), Nāgārjuna (5.107), Nandin (6.73), Nandirāja (1.145), *Prakāśāmṛta* (8.275), Somadeva (7.37; 9.11),[83] and Svacchandabhairava (8. 132–133). P. Rāy[84] asserted that the *Rasārṇava* is quoted in the *Rasaprakāśasudhākara*.[85]

A Yaśodhara is one of the Rasasiddhas in the Vādikhaṇḍa of the *Rasaratnākara* (1. 67). Yaśodhara is said to be the same as the Yaśodhana of the *Rasaratnasamuccaya*.[86]

Yaśodhara is quoted in Gulrājśarmamiśra's commentary on the *Āyurvedaprakāśa*, Hazārīlāl Sukul's commentary on the *Rasaratnasamuccaya*, and Somadevaśarman's commentary on the *Āyurvedaprakāśa*. He is cited as Padmanābhasūnu in Gulrājśarmamiśra's commentary on the *Āyurvedaprakāśa* and Hazārīlāl Sukul's commentary on the *Rasaratnasamuccaya*.

The *Rasaprakāśasudhākara* is quoted or referred to in the prakīrṇaka pariśiṣṭa of the *Ānandakanda*, the *Dharaṇīdharasaṃhitā*, Gulrājśarmamiśra's commentary on the *Āyurvedaprakāśa*, Hazārīlāl Sukul's commentary on the *Rasaratnasamuccaya*, the *Pāradasaṃhitā*, the *Rasadhātuprakāśa*, the *Rasatattvavivecana*, the bhasmapiṣṭiprakaraṇa of the *Rasoddhāratantra*, and Somadevaśarman's commentary on the *Āyurvedaprakāśa*; it is one of the sources of the *Bheṣajasaṃhitā*, Hariprapanna's *Rasayogasāgara*, Hariśaraṇānanda's *Kūpīpakvarasanirmāṇavijñāna*, the *Rasavidyāmahārṇava*, the *Rasoddhāratantra*, and Yādavajī's *Rasāmṛta*.

Special features

The *Rasaprakāśasudhākara* is a conveniently arranged and orderly work, chiefly composed by the author himself. Yaśodhara is a remarkable writer, who, repeatedly, without wasting words, makes clear which parts of his treatise derive from earlier works[87] and which parts are based on his own experience[88] or that of his teacher.[89]

Yaśodhara was obviously interested not only in alchemy for its own sake, but also in the medicinal uses of alchemical products. The medicinal properties and actions of many substances are recorded in detail, while chapters three, eight, twelve and thirteen mainly consist of recipes and their indications.

Yaśodhara does not describe the alchemical laboratory, its apparatus, implements, etc., giving only a list of yantras, etc., in chapter ten. However, the characteristics of a few yantras occur in chapter one: khalva (1.37cd–39), ūrdhvapātanayantra (1.50–56ab), adhaḥpātanayantra (1.56cd–58ab), tiryakpātanayantra (1.58cd–62ab), jalayantra (1.87–91),[90] and sāraṇāyantra (1.128–140ab).

Chapter one refers to a utensil called karoṭī (1.85),[91] to vahnimṛttikā (1.90),[92] ghoṣākṛṣṭa (1.94),[93] and nīlakalka (1.106–107ab). The same chapter distinguishes

five kinds of vedha, called lepa-, kṣepa-, kunta-, dhūma-, and śabdavedha (1.146cd–156).[94] The verses on the use (sevana) of mercurial preparations (1.157–164) do not refer to the inherent dangers.

Chapter five does not mention capala as one of the mahārasas, whereas rājāvarta is included in this group. The amṛtīkaraṇa of killed mica (mṛtābhra) is not described. Eight varieties of vaikrānta are mentioned; karbura is added to the more usual list of seven varieties.[95] The description of the extraction of the essence (sattva) of rasaka (5. 112–116) is regarded as a process to win zinc from its ore; the sattva is said to resemble lead (sīsa).[96]

Chapter six contains accounts of substances usually regarded as sādhāraṇarasas.[97] Some of these substances are: agnijāra (6.81),[98] girisindūra (6.83), and mṛddāraśṛṅgaka (6.89).[99] Kampillaka and gaurīpāṣāṇa are not dealt with.

Chapter eight frequently employs the term jūrti for fever,[100] although the more usual jvara is used as well. A disorder arising from the abuse of opium is referred to (8.39). The formula of rāmabāṇarasa associates agnimāndya with Daśavaktra, i.e., Rāvaṇa, saṃgrahaṇagrahaṇī with Kumbhakarṇa,[101] and āmavāta with Khara and Dūṣaṇa.[102] Contrary to usage, the formulae of the rasas of chapter eight are not attributed to divine authorities and ancient sages.[103]

The list of sixty-four divine herbs (divyauṣadhi) of chapter nine is based, as Yaśodhara himself indicates, on Somadeva's *Rasendracūḍāmaṇi*. The source or sources of the lists of rasauṣadhis, mahauṣadhis and rasādhikamahauṣadhis remain unknown.[104]

The sixty-eight rasauṣadhis are: ajamārī, alambuṣā, aparājitā, ardhacandrā, ativiṣā, bhārgī, bṛhatī, candrodakā, ciñcā, citrapālikā, durālambhā, durgandhā, garuḍī, gojihvā, guḍūcī, haṃsapādī, hariṇī, hemapuṣpī, īśvarī, jalakumbhī, jalamūlakā, jalāpāmārga, jalapippalikā, jālinī, jalotpalā, kāśmarī, kukkuṭā, lāṅgalī, mālārjunī, māṃsikā, maṇḍūkī, mañjiṣṭhā, markasphoṭī, meghanādā, mohinī, mūrvā, muśalī, nandinī, pāgava, pāṣāṇī, pāṭalā, paṭolī, potakī, rasā, rasacitrā, samaṅgā, sārivā, sarpākṣī, śaṭhikā, śikhipādī, śīśikā, sitagandhinī, śṛṅgī, sthalasāriṇī, śukanāsikā, tiktikā, tulasī, tuṣāmbukā, uttamā, vajrakandikā, vanakūṣmāṇḍavallikā, vanamālī, varāhī, vāsā, veṇukā, vidārī, viṣaghnī, and vṛścikālī (9.12cd–22ab).

The sixty-eight mahauṣadhis are: adhoguptā, ajagandhā, ajamodikā, āmalī, amlikā, āsurī, aśvagandhā, atibalā, bākucī, balā, bimbī, dantī, dhātakī, drākṣā, dravantī, dūrvā, elā, gavākṣī, girikarṇikā, grīṣma, hapuṣā, jantupādī, jātī, jyotsnā, kadalī, kākāhvā, kāsamardikā, kekicūḍā, kharjūrī, lakṣmaṇā, mahābalā, mallikā, nāgabalā, nalikā, nālikerī, nirguṇḍī, nīlinī, nīlotpala, phalgu, prasāriṇī, pṛthvī, rāsnā, ṛddhi, śālmalī, śamī, śaṅkhapuṣpī, śarapuṣpikā, sārivā, sātalā, śatapuṣpā, śatāvarī, śiṃśī, sinduvāra, śoṣiṇī, śrāvaṇī, svarṇakṣīrī, taruṇī, tejovatī, trāyamāṇā, trivṛt, tugā, varā, varṣā, varṣābhū, vārṣikī, viśālā, viṣāṇī, and yūthikā (9.22cd–30ab).

The sixty-eight mahauṣadhis which are rasādhikā consist of: adhaḥpuṣpī, ajagandhā, ambumūlikā, arkavallikā, aṣṭavallī, āsurī, aśvinī, avantī, bhṛṅgavallī, bhṛṅgī, cakravallī, chidralambikā, devagandhārī, devī, dugdhikā, gajapippalikā, gaṅgeṭī, gṛdhranakhī, gṛñjanī, haṃsapādikā, iṅgudī, īśvarī, jambīravallikā, jantukārā, jārāvalī (or jarāvallī), jayantikā, kākāṇḍolā, kālavarṇā (latā), kāmbojī, kāñcanī, kanyā, karavīrā, kāṣṭhāgodhāmatī, khoṭakā, kṣetrī, kṣutkārī, kuberākṣī, mahārāṣṭrī, mayūrākhyā, nāhī,

nākulī, nārācī, palāśatilakā, palāśinī, panasī, parpaṭī, rajanī, rājapadmā, rājaśamī, rohitā, sahadevī, śallakī, saṃvīrā, śarapuṅkhikā, sarpadaṣṭā, siddheśvarī, śigruvallī, siṃhikā, śivāṭikā, somarājikā, śṛṅgarīṭikā, śṛṅkhalā, tāmravallikā, tauvarī, ṭuṭumbhaṭī, vaṅgajā, vijayā, and viṣakharparikā (9.30cd–39).

Some names of yantras listed in chapter ten are less common or unusual: cipiṭayantra,[105] bhairavayantra, nigaḍayantra, sāraṇāyantra,[106] guhyayantra, gandhapiṣṭakayantra, kūpīyantra,[107] devayantra, and ghāṇikāyantra. The description of the jalayantra differs from that of related yantras in other texts.[108]

Some noteworthy names of plants and substances of vegetable origin (apart from those found in chapter nine) are: ākallaka (8.32 and 36), dvīpāntarotthā (8.36),[109] karabha (13.2), karahāṭa (13.9 and 11),[110] khurāsānī (13.1), loṭṭāka (8.264),[111] mastakī (13.1), posta (13.8), postaka (13.13), rāgiṇī (11.6), śvetāmbarī (8.265), and trinemī (11.6). Opium is frequently found in Yaśodhara's materia medica.[112]

Cinnabar originating from Western countries (romadeśīya) is referred to (11.9).

The author

Yaśodhara mentions in the concluding verses of his treatise his own name, Yaśodhara or Bhaṭṭayaśodhara, the name of his father, Padmanābha, who was a brāhmaṇa of Śrīgauḍa lineage, and the place of his residence, the walled town (prākāra; durga) called Jīrṇa, located in Surarāṣṭra.[113] Yaśodhara, who calls himself a kavi and kavivara, adds that his father was a devotee of Viṣṇu.[114]

Date

The references to Somadeva, the author of the *Rasendracūḍāmaṇi*, establish that Yaśodhara is later. Prafulla Chandra Rāy[115] was of the opinion that the observations on the metallurgy of zinc, found in the *Rasaratnasamuccaya*, were based on similar observations in Yaśodhara's work.[116] This hypothesis, which makes the *Rasaprakāśasudhākara* into an earlier work than the *Rasaratnasamuccaya*, was accepted by a number of subsequent scholars.[117]

Most scholars, being convinced that the *Rasaprakāśasudhākara* is posterior to the *Rasendracūḍāmaṇi* and anterior to the *Rasaratnasamuccaya*, assign the work to the thirteenth century.[118]

Actually, Yaśodhara belongs to a later period, because he was acquainted with the drug usually called cobacīnī, but referred to in the *Rasaprakāśasudhākara* as dvīpāntarotthā (8.36).[119] This drug, of foreign origin, as indicated by its name, was introduced by the Portuguese in the sixteenth century.[120] In agreement with this date is the description of rasakarpūra (3.6–10ab). Both cobacīnī and rasakarpūra were employed in the treatment of syphilis, a disease left unmentioned in the *Rasaprakāśasudhākara*, which may mean that Yaśodhara, although belonging to the sixteenth century,[121] preceded Bhāvamiśra, who composed the *Bhāvaprakāśa*.[122] This chronological position implies that Yaśodhara's work and the *Rasaratnasamuccaya* are not far removed from each other in time.

Rasarājalakṣmī

The *Rasarājalakṣmī* by Viṣṇudeva[123] is a treatise on alchemy and iatrochemistry.

Sources mentioned are: Ātreya, Bhagavadgovinda (the author of the *Rasahṛdaya*), *Bhavānīmata*, Caraka, Dāmodara, Hārīta, *Īśahṛdaya*,[124] *Kākacaṇḍeśvarītantra*, Nāgārjuna, *Rasasāgara*, *Rasasudhāmbhodhi*, *Siddhasāra*, Suśruta, *Sūtamahodadhi*, *Svacchandaśaktyāgama*, Vāgbhaṭa, Vāsudeva, Vṛnda, and Vyāḍi.[125] The *Rasārṇava* is by some added to this list.[126]

G. Hāldār asserts that Rāmeśvarabhaṭṭa, Viṣṇudeva's son, wrote a commentary on his father's work.[127]

The *Rasarājalakṣmī* is quoted in the *Amṛtasāgara*, *Bṛhadyogataraṅgiṇī*, *Rasakāmadhenu*, *Rasasindhu*, *Rasayogasāgara*, Ṭoḍara's *Āyurvedasaukhya*, and the *Yogaratnākara*. It was one of the sources of the *Āyurvedaprakāśa*.

Subjects dealt with in the *Rasarājalakṣmī*[128] are, according to the quotations from the work: the preparation of fermented beverages (saṃdhāna),[129] the preparation of a biḍa in general[130] and of a haṃsapākabiḍa,[131] the liquefaction (druti) of gems,[132] the rasas[133] and mahārasas,[134] the purification of uparasasattva,[135] the varieties of mākṣika,[136] capala,[137] the uparasas,[138] the properties of mūrchita and baddha mercury,[139] mūrchana,[140] mukhakaraṇa,[141] jāraṇa,[142] jalaukābandha,[143] and daradākṛṣṭi.

Formulae from the *Rasarājalakṣmī* are found in the *Rasayogasāgara* and some other treatises.[144]

Viṣṇudeva, son of Mahādeva,[145] was patronized by king Bukka I of Vijayanagar (A.D. 1356–1377).[146]

Viṣṇudeva is also called Viṭṭhala or Viṭṭhalagalaṇḍa[147] and his father Mahādevagalagaṇḍa.[148] The original place of residence of the family was Elichpur (Alasapuram).[149] Descendants of Viṭṭhala are said to be still living at Gulbarga in the Deccan.[150]

Viṣṇudeva or Viṭṭhala was also the author of the *Rasasindhu*[151] and of four medical treatises in Marāṭhī: *Hitopadeśa*, *Rasakaumudī*, *Rasaratnapradīpa*, and *Vaidyacakoracandrikā* or *Vaidyacandracakorikā*.[152]

Rasaratnadīpikā

The *Rasaratnadīpikā* by Śrīvāṇeśvara Bhaṭṭācārya[153] is a collection of rasayogas, mixed with āyurvedic recipes, preceded by a short section on some alchemical operations.

Contents

The work begins with verses, mixed with prose, praising mercury, describing the doṣas of mercury and their removal, etc., followed by stanzas on the purification, etc., of the metals and sulphur (1–8).

The remaining part of the treatise contains rasayogas and āyurvedic recipes, to which glosses are added, against the diseases mentioned in the *Mādhavanidāna* and a number of disorders described in later treatises. Many formulae are ascribed to divinities and famous authorities; some are attributed to Caraka,[154] Hārīta,[155] and

Vaṅgasena.[156] A pariśiṣṭa deals with the three doṣas and some other general topics.

The only treatise referred to is the *Rasārṇava* (4).

Special features

Noteworthy disorders mentioned are: agramāṃsa (367–368),[157] āhavajvara (76–81),[158] asthijvara (103),[159] and raktadhātugatadāha (103).[160]

The section dealing with the treatment of women's diseases includes verses on disorders called bādhaka, caused by four demonic beings, dangerous to pregnant women and women in childbed, whose names are Raktamādrī, Jaṅkurī, Ṣaṣṭhī, and Jalakumāraka. These beings are described, together with the symptoms occasioned by their attack (409–410).[161] This description is follwed by a quotation in sixteen verses and a section in prose from the *Bhairavītantra*,[162] concerned with the means of appeasing the demons mentioned (411–414).

Unusual is the presence of a number of prescriptions fathered on Sanaka (167; 174; 175; 177–178; 190; 242; 260; 332–333; 342).

Author

The author was a pupil of Harināthaśarman.[163]

Date

The *Rasaratnadīpikā* was completed in 1932/33.[164]

Chapter 8
Rasaratnākara

The *Rasaratnākara* by Nityanātha[1] is an important treatise on alchemy and iatrochemistry.

Contents[2]

The *Rasaratnākara* is divided into five sections (khaṇḍa): (I) Rasakhaṇḍa, (II) Rasendrakhaṇḍa, (III) Vāda-, Vādi- or Ṛddhikhaṇḍa, (IV) Rasāyanakhaṇḍa, and (V) Mantrakhaṇḍa.[3]

The Rasakhaṇḍa

The *Rasakhaṇḍa*[4] (577 verses) consists of ten chapters (upadeśa).[5] Chapter one (rasapīṭhikā; 33 verses) opens with a maṅgala addressed to Caṇḍikā (i.e., a terrific form of Pārvatī)[6] and Candraśekhara (i.e., Śiva), followed by some verses on the five sections of the *Rasaratnākara* and those to whom they are addressed (1–6). The other subjects of chapter one are: the praise of mercury (7–14 and 23–24) and the iatrochemist (15), the usefulness of the book (16–22 and 25–26), the doṣas of naturally occurring mercury (27–29ab), the qualities of purified mercury (29cd–30), and the quantity to be taken for purification (31–33). The treatise is declared to be based on earlier works, the teachings of the author's guru and personal experience (16–22).

Chapter two (rasaśodhanamāraṇa; 46 verses) describes the purification and killing of mercury. Four kinds of bhasman are produced by these processes: white, yellow, red, and black in colour. The māraṇauṣadhis are listed in this chapter (15–20).

Chapter three (māraṇa; 46 verses) is about a better method of killing mercury; this type of killing is preceded by jāraṇā and the addition of a bīja (1–2). In order to achieve jāraṇā, mercury has to be provided with a 'mouth' (mukha) first (3–7ab), which process is called mukhakaraṇa. Killing of mercury is also possible, without giving a mukha to mercury (nirmukha), by adding a biḍa; the way to prepare a biḍa is described (13cd–18). The niyāmaka plants are enumerated, employed in the māraṇa, mūrchana and bandhana of mercury (34–41). The examination of mercurial bhasmans and their uses are dealt with (43cd–46).

Chapter four (mūrchanādinirūpaṇa; 54 verses) is concerned with the mūrchana and bandha of mercury. The same chapter describes the preparation of hairaṇyagarbhakarasa (29cd–30). The chapter ends with a verse on the daivī, mānuṣī and rākṣasī types of medical treatment (54), i.e., the treatment with rasas, with herbs and mantras, and with surgical methods.

Chapter five (vajravaikrāntaśodhanamāraṇa; 49 verses) enumerates the uparasas: gandhaka, vajra, vaikrānta, vajrābhra,[7] tālaka, (manaḥ)śilā, kharpara, śikhituttha,[8] vimalā, hemamākṣika, kāsīsa, kāntapāṣāṇa, varāṭī, hiṅgula, kaṅkuṣṭha, śaṅkha, bhūnāga, ṭaṅkaṇa, and śilājatu (1–2). Described are the purification and killing of sulphur (gandhaka; 4–9), diamonds (vajra; 10–46) and vaikrānta (47–49), as well as the varieties of diamonds, distinguished according to their colour: śveta (= brāhmaṇa), rakta (= kṣatriya), pīta (= vaiśya), and kṛṣṇa (= śūdra), or their gender: puruṣa, strī and napuṃsaka (16–23).

Chapter six (abhrakaśodhanamāraṇa; 44 verses) gives an account of the four varieties of mica (abhraka), the purification of its best variety (vajrābhra), resulting in dhānyābhraka,[9] killing of dhānyābhraka, and the amṛtīkaraṇa of the bhasman.

Chapter seven (sarvoparasasattvapātana; 56 verses) deals with the purification of tālaka (1–8), manaḥśilā (9–12), rasaka (= kharpara; 13), tuttha (14–15), vimalā (16–18), and mākṣika (19–28); the impurities of the uparasas (called dhātu here; 29–30), the killing of coral (vidruma; 31), the purification and killing of the eight gems and manaḥśilā (32–34), the purification of śaṅkha, nīlāñjana, darada (= hiṅgula), sauvīra, kāntapāṣāṇa, etc. (35–42), and the sattvapātana of guggulu, tālaka, (manaḥ)śilā, mākṣika, and all the uparasas (43–56).

Chapter eight (svarṇādivaṅgāntamāraṇa; 101 verses) begins with an enumeration of the group of twelve metals and allied substances; the eight metals (lauha) consist of: gold, silver, copper, lead, tin, and three kinds of iron: kānta, tīkṣṇaka, and muṇḍa; the three alloys (upalauha) are: kāṃsya, āra (= pittala) and ghoṣaka; maṇḍūra is the twelfth item (1–2). Described in this chapter are the purification and killing of gold, silver, copper, lead and tin.

Chapter nine (kāntalauhādikiṭṭamāraṇa; 67 verses) is concerned with the purification, killing and amṛtīkaraṇa of the bhasman of iron (1–60), the purification and killing of the upalauhas (61–64), and the purification of maṇḍūra (65–67). One method of killing iron has been borrowed from the Siddhas (47–51ab).

Chapter ten (tailapātana; 81 verses) deals with the preparation of a large number of oils (1–27) and many other subjects: poisonous substances (28–61), the purification of bile (61), śilājatu (61–69ab and a passage in prose), substances used for bhāvanā (sālasārādigaṇa; 69cd–71), the process of bhāvanā (72–73),[10] the purification of dagdhahīraka (74),[11] guggulu and its purification (75–77 and a passage in prose), and the purification of śaṅkhanābhi, varāṭī, and muktā (78–81).

The Rasendrakhaṇḍa

The *Rasendrakhaṇḍa*[12] (about 5,100 verses) consists of seventy-one chapters (adhikāra), dealing with the aetiology, symptomatology and treatment of diseases, largely arranged in agreement with the *Mādhavanidāna*.[13] Some chapters on diseases left undescribed in Mādhava's work are added, as well as chapters on rasāyana (68), rasājīrṇa (69), and vājīkaraṇa (70).

The verses on therapy contain both āyurvedic recipes[14] and rasayogas. Glosses, explaining technical terms, names of plants, etc., are not rare.

Chapter one (jvara and jvarātīsāra; 421 verses) begins with verses said to represent Caraka's views on the catuṣpāda (the four pillars of treatment; 1–26).[15] Verses on karmaja and doṣaja disorders, the three doṣas, other constituents of the body, etc. (27–89), precede the section on the treatment of fevers (90–405) and jvarātīsāra (406–421). The chapter on raktapitta has an appendix on the purification of sulphur; it is written in verse and prose, borrowed from earlier works. The chapter on vātavyādhi has verses on the purification of substances employed in the preparation of fragrant oils (vātavyādhi 184–195) and on other subjects connected with perfumery (vātavyādhi 196–236).

Several mantras[16] and two yantras[17] are mentioned.

The author of the glosses is unknown. The majority consist of short explanations, but some are more elaborate.[18] The glossator refers to variants of the text[19] and disagreeing opinions.[20]

The Vādikhaṇḍa

The *Vādikhaṇḍa*[21] (2,325 verses) deals exclusively with alchemy and some related subjects. It is arranged in twenty chapters.

Chapter one (rasadīkṣā; 76 verses) is about the teacher and his pupil, the dīkṣā, and the rasaśālā (laboratory) with its inventory.

Chapter two (vargasādhanādirasaśodhanānta; 54 verses) is concerned with the items belonging to several vargas (4–31), the vajramūṣā (31–39), the purification of mercury (39–45), the taptakhalva (46–47), and the preparation of mercury from cinnabar (48–54). The vargas mentioned are: kṣāravarga, śuklavarga (= śvetavarga), viḍvarga, amlavarga, lavaṇapañcaka, kṣāratraya, mūtravarga, raktavarga, pītavarga, and the group of divine herbs (divyauṣadhi).

The subjects of chapter three (vajraśodhanādidhātumāraṇa; 129 verses) are: diamonds (vajra), their varieties (2–5), their purification (6–13ab) and killing (13cd–48ab), their mṛdūkaraṇa, which makes them into what is called vajraudana (48cd–64); the purification of vaikrānta and the uparasas (65–67), the purification of sulphur (68–76) and the extraction (pātana) of its oil (77–82), the purification of tālaka, vimala, rasaka, and other substances (83–97), the preparation of dhānyābhraka (98–99), and the killing of abhraka (100–104); the purification of all the metals (105–108), and the killing of lead, iron, tin, copper, silver, gold, āra (= pittala) and ghoṣa (= kāṃsya) (109–129).

Chapter four (tārarañjana; 163 verses) gives an account of the preparation of gandhakapiṣṭikā (2–3ab and 13–31) and svarṇapiṣṭikā (3cd–4ab), gandhakajāraṇa (4cd–8), the preparation of the gold called siddhayoga (9–12), the stambhana, jāraṇa and māraṇa of gandhakapiṣṭī (32–41ab), the preparation of artificial gold (tāravedha; 41cd–64, 74cd–77ab, 90cd–107ab, 117cd–120ab, 123cd–132, 156–163), the preparation of tāriṣṭa[22] and its uses in making artificial gold (65–74ab, 77cd–86, 133–151), aurifaction by means of the bhasman of lead (87–90ab), the preparation of siddhacūrṇa and its uses in aurifaction (107cd–117ab and 120cd–123ab), and the turning of copper into gold (152–155).

Chapter five (varṇotkarṣaṇavarṇavivardhana; 56 verses) describes the preparation of sitasvarṇa (an alloy of gold and silver) and its turning into pure gold (2–22), the preparation of pakvabīja which turns sitasvarṇa into pure gold (23–30), the preparation

of hemaraktikā, and the improvement of the quality of gold of less than ten varṇa[23] (varṇavivardhana; 31–55).

Chapter six (rañjanādicandrārkavedhana; 125 verses) is about various methods which transmute lead (2–28ab), copper, candrārka and sitasvarṇa (28cd–125) into gold.

Chapter seven (drutasūtaprayoga; 127 verses) is concerned with processes which turn various metals into gold and with substances employed in these processes. Its subjects are: the preparation of piṣṭigola (2–9), nigaḍa (10–16),[24] mercurial khoṭa (17–25ab), biḍavaṭī (25cd–28ab),[25] drutasūta (28cd–42), and the transmutation, by means of drutasūta, of various metals into gold: copper, lead, candrārka, silver and sitasvarṇa. An additional subject is the khoṭabandha of mercury (72–73).

Chapter eight (vaṅgastambhanādidalakaraṇa; 144 verses) describes operations which turn tin and copper into silver. Additional subjects are the purification of tin (2–4) and copper (93–97).

Chapter nine (vajrayogena hemakaraṇam; 131 verses) gives an account of methods which turn various metals into gold by means of substances prepared from mixtures of diamonds and mercury or gold (dvandvakhoṭa).

Chapter ten (pakvabījavargasādhana; 90 verses) is about the following subjects: the preparation of pakvabīja (2–8) and nāgabīja (9–12); the colouring of a bīja (13–24); the preparation of tārabīja (25–34); the preparation of sāraṇātaila (38–44); the preparation of krāmakasattva, used in krāmaṇa (45–52); the preparation of various types of biḍa and their use in jāraṇa (54–90).

Chapter eleven (svedanādyanuvāsanāntasaṃskāranavaka; 36 verses) enumerates eighteen saṃskāras of mercury: svedana, mardana, mūrchā, utthāpana, pātana, nirodhana, niyāma, dīpana, anuvāsana, jāraṇa, cāraṇa, garbha(druti), bāhyadruti, rañjana, sāraṇa, anusāraṇā, pratisāraṇā, and krāmaṇa (2–3). The first five saṃskāras, followed by dīpana and anuvāsana, are described in this chapter.

Chapter twelve (gandhakābhrahemarajatajāraṇa; 85 verses) is concerned with the jāraṇa of sulphur (2–9) and with pakvabīja (10–16), the mukha- and khoṭabandha of mercury (17–22), methods which give a mukha to mercury (25–31), a ritual, accompanied by a mantra, that should precede cāraṇa (32–37), the cāraṇa of abhraka (38–57), the vedha of mercury that has been subjected to cāraṇa (38–70), the nirmukhacāraṇā and -jāraṇā of abhraka (71–74) and the results of these processes (75–84).

Chapter thirteen (abhrakādisattvapātanādyabhiṣekānta; 105 verses) describes the extraction of the essence of abhraka (5–21), mākṣīka (22–32), manaḥśilā (33–41), haritāla (42–50), tuttha (51–55), sauvīra (56), rasaka (57–62), vaikrānta (63–70), gairika (71), saurāṣṭrī (72), sasyaka (73–74), kāsīsa (75–76), rājāvarta (77–78), and śroto'ñjana (79–80). The second part of the chapter is devoted to the making of mixtures of two substances (dvandvamelāpana; 81–98) and to two ways of preparing the fluid used for abhiṣeka (99–103).

Chapter fourteen (dvandvasattvādibījajāraṇahemajāraṇahematārakaraṇa; 107 verses) is about jāraṇa, the svarṇa- and tārabīja employed in this process, and the vedha resulting from it.[26]

Chapter fifteen (jāraṇādigarbhadrāvaṇa; 128 verses) is about the following subjects: the preparation of various bījas (2–16 and 95–101), the colouring of mercury (rañjana; 17–25 and 64–66), druti (38–50 and 58–60ab), jāraṇa (60cd–63, 79–84, 102–104), and vedha (26–37, 51–57, 67–78, 85–101, 105–127).

Chapter sixteen (bhūnāgasattvādisiddhiyogaiḥ svarṇakaraṇam; 121 verses) is devoted to the preparation of bhūnāgasattva (2–12) and bhūnāgataila (13–14), the preparation of guhyasūta (15–20),[27] its jāraṇa and use in making gold (21–41), the use of vaikrānta of a red, yellow, black, white, or coppery colour in making gold and silver (42–89), the four varieties of capalā and their uses in making gold and silver (90–103), and some other methods to arrive at the transmutation of base metals (104–120).

Chapter seventeen (drutikaraṇa; 73 verses) describes the liquefaction (druti) of mica (abhraka; 2–30), abhrakasattva (31–39), gold and silver (40–42), tīkṣṇaloha (43–44 and 53–54), all the metals (45–46 and 56–59), gold (47–52), kāntaloha (55), mākṣikasattva (60), all the gems and metals (61–65), diamonds (66–68), vaikrānta, and all the gems (69–71). The chapter ends with two verses on the stabilization (sthāpana) of a druti (72–73).

Chapter eighteen (drutivajraratnajāraṇākrameṇa pāṣāṇavedhaparyantavedhavidhiḥ; 183 verses) deals with several ways of mixing a druti with mercury (drutimelāpana; 2–12)[28] and the uses of these mixtures in making gold (57–58, 85–98) and silver (79–84), the preparation of vajrabīja (99–106) and its jāraṇā, which results in several types of vedha (107–149), and the preparation of another bīja which, after processing it, enables mercury to pervade all kinds of materials, even rocks and stones (giri, pāṣāṇa), changing them into gold (150–182).

Chapter nineteen (ratnādigandhavādanadhanavardhana; 140 verses) describes how to make paste gems: padmarāga, indranīla, marakata, gomeda, puṣparāga, nīlamāṇikya (2–16), pearls (17–32),[29] and coral (33–40). Also described are the preparation of artificial cinnabar (41–45) and sindūra (46–54), the preparation of saindhava and suvarcala (55–59), the adulteration of hiṅgu (60–69), the making of artificial tin (70–74) and amlavetasa (75–78), the preparation of ink (maṣī; 79–80),[30] the adulteration of ghee (81–88), the preparation of fake sandal, camphor (karpūra), musk (kastūrī) and saffron (kuṅkuma) (89–119),[31] the preparation of divyadhūpa (120–127), the extraction of fragrant substances from flowers (puṣpadruti; 128–131), and magical methods to increase the yield of the grain on the fields (dhānyavardhana; 132–139).

Chapter twenty (no title; 143 verses) gives an account of the bandha of mercury (2–49), the preparation of a mercurial bhasman (50–57), giving a mukha to baddha mercury (58–62), several methods of transmuting base metals into gold or silver (63–104), giving a mukha to lead (105–109), ways to soften (mṛdūkaraṇa) hard metals (110–114), the preparation of guhyasūta and its use (116–121), the preparation of guhyavaṅga and guhyanāga (122–129), three varieties of kāmadhenuguṭikā (130–137), some methods of changing silver, lead and sitasvarṇa into gold (138–141), and, finally, a method of making mercury able to digest mica (abhrakagrāsa; 142).

The Rasāyanakhaṇḍa

The *Rasāyanakhaṇḍa*[32] (951 verses) is, as indicated by its title, especially devoted to rasāyana and allied subjects.

Chapter one (rasamāraṇa; 57 verses) introduces rasāyana and related topics (1–24); eleven methods of killing mercury are dealt with (25–55). The garbhayantra, employed in some of these methods, is also described (38cd–40).

Chapter two (divyarasadehasādhana; 140 verses) is concerned with the formulae of a number of rasayogas and their effects. Many of these rasas may not be found in earlier texts.[33]

Chapter three (guṭikārasāyana; 221 verses) describes a series of miraculous pills (guṭikās and vaṭikās) to be employed in the saṃskāras called krāmaṇa and vedha, as well as for rasāyana purposes. Some of these pills may be peculiar to the Rasāyanakhaṇḍa,[34] while some are also found in the *Rasakāmadhenu*, which may have borrowed them.

Chapter four (nānārasāyana; 115 verses) is concerned with various rasāyanas (1–43). This chapter also contains a number of kalpas: brahmavṛkṣa- (44–59), śvetapalāśa- (60–63), muṇḍī- (64–66), devadālī- (67–72), śvetārka- (73–75), hastikarṇa- (76–79), rudantī- (80–84ab), and nirguṇḍīkalpa (84cd–91).[35] This kalpa section is followed by rasāyana formulae (92–100), a śunakaśālmalikalpa (101–107ab), rasāyana formulae again (107cd–111), and verses on the addition of pāradabhasman to the preparations described, the mantra to be recited when using them, and rules concerning their employment (112–115).

Chapter five (udvartanakeśarañjana; 71 verses) contains formulae that remove wrinkles and turn grey hair black again (2–62ab); it ends with some recipes which whiten the hair (62cd–70).

Chapter six (vīryavardhana; 89 verses) consists of vājīkaraṇa formulae, in particular in the form of rasayogas (2–64ab).[36] The second part of the chapter is about vājīkaraṇa recipes in which the main ingredients do not consist of mercury or substances derived from it.

Chapter seven (vīryastambhanaliṅgavardhana; 73 verses) contains prescriptions which delay or suppress ejaculation and make the male member large, long and firm.

Chapter eight (śrīparvatasādhana; 185 verses) is about dehasiddhi and lohasiddhi; it describes how to acquire a divine body and turn base metals into gold. This interesting chapter mentions repeatedly the mountain called Śrīśaila and abounds from beginning to end in names of local deities and geographical names.

The Mantrakhaṇḍa

The *Mantrakhaṇḍa*[37] is arranged in seven subdivided chapters:[38] (1) sarvavaśyādipativaśya:[39] (a) sarvavaśya (subjugating all creatures), (b) rājavaśya (subjugating the king),[40] (c) strīvaśya (subjugating women),[41] (d) liṅgalepana (anointing the penis), (e) strīdrāvaṇa (luring women), (f) pativaśya (subjugating one's husband); (2) ākarṣaṇādistambhana: (a) ākarṣaṇa (attraction),[42] (b) stambhana (immobilization),[43] (c) agnistambha (immobilizing fire), (d) jalastambhana (immobilizing water); (3) mohanādigṛhakleśanivāraṇa (averting the creation of confusion and domestic troubles): (a) mohana (delusion),[44] (b) uccāṭana (extirpation or eradication),[45] (c) māraṇa (killing),[46] (d) vidveṣaṇa (causing dissension),[47] (e) vyādhikaraṇa (causing illness),[48] (f) unmattākaraṇa (causing mental derangement), (g) ṣaṇḍhakaraṇa (causing impotence), (h) bhagabandhana (sealing the vagina), (i) gṛhakleśanivāraṇa (averting evils from the house); (4) kautūhalāni (conjuring tricks); (5) yakṣiṇīsādhana (conjuring up a yakṣiṇī); (6) añjanādipādukāsādhana : (a) añjana (ointments), (b) adṛśya (invisibility), (c) pādukāsādhana (acquiring magic sandals); (7) mṛtasaṃjīvanādikakṣapuṭī: (a) mṛtasaṃjīvana (resuscitation),[49] (b) nirāhāra (fasting), (c) sāṅgopāṅgaprakāreṇa kakṣapuṭī (the *Kakṣapuṭī* in all its main and subsidiary parts).[50]

This table of contents shows that the Mantrakhaṇḍa is chiefly concerned with ṣaṭkarman, the 'Six Acts' of Indian magic.[51] It is closely related to Nāgārjuna's *Kakṣapuṭa* and reproduces some of its verses and mantras. The subjects dealt with in both works are similar.[52]

Some MSS of the Mantrakhaṇḍa may even contain the text of the *Kakṣapuṭa*, such as Cat. Madras Nr. 13202, which contains a text in twenty chapters (paṭala) with the following headings: (1) mantrasādhana, (2) sarvalokavaśīkaraṇa, (3) rājavaśya, (4) strīvaśya, (5) pativaśya, (6) ākarṣaṇa, (7) agnijalastambhana, (8) aśanistambhana,[53] (9) mohanoccāṭana, (10) māraṇavidhi, (11) vidveṣaṇādi, (12) mantrīkaraṇa,[54] (13) kautukavidhāna, (14) yakṣiṇīmantrasādhana, (15) sarvāñjanasādhana, (16) nidhigrahaṇa, (17) adṛśyakaraṇa, (18) pādukāsādhana, (19) mṛtasaṃjīvinī, and (20) sāṅgopāṅgakakṣapuṭaprakaraṇa.[55]

One version of the *Kakṣapuṭa*[56] states in one of its introductory verses that the Mantrakhaṇḍa will be expounded; the arrangement of its contents is close to that of the Wellcome MSS of the Mantrakhaṇḍa.

The introductory verses of some texts of the Mantrakhaṇḍa refer to the same earlier works, in particular Tantras, as the opening verses of the *Kakṣapuṭa*.[57]

Authorities and works quoted or mentioned in the *Rasaratnākara* and the glosses on the Rasendrakhaṇḍa are:[58] Agastya (II: visphoṭa 16–17), the Aśvins (II: raktapitta 52–59; śūla 33–40; kuṣṭha 264–268; amlapitta 68–79; pradara 12–17; yonivyādhi 9–16), Ātreya (II: vraṇaśotha 17–25; kuṣṭha 110–117; pradara 23–29ab), Bhārgava (II: kuṣṭha 98–109), Bindusāra (II: raktapitta 34–35), Cakra[59] (II: vātavyādhi 161–164), Candranātha (II: śūla 77–85; kuṣṭha 217–226), Caraka (jvara 1–26 and 242–248; visarpa 17), Carpaṭisiddha (I.1.17),[60] Devadeva (II: śūla 24–32), Dhanvantari (II: pariṇāmaśūla 11–17), *Dīpikā* (I.1.16 and 27–30; 4.48–54),[61] Gahanānanda (II: vātarakta 50–57 and 102–109; kuṣṭha 217–226), Gahananātha (II: udara 90–93; ślīpada 56–65 and 66–70; kuṣṭha 230–231 and 232–235), Gorakṣanātha (IV.4.100), *granthāntara* (I.10.48–50; II: jvara 121–123, 282–285, 406–411; grahaṇī 45–53, 91–95, 109–116; pāṇḍuroga 79–82), *Haramekhalā* (II: pāṇḍuroga 83–85), *Haramekhalakagrantha* (introductory verses V),[62] Hārītamuni (II: vātavyādhi 60–87; ślīpada 33–41), Jatūkarṇa (II: gloss ad unmāda 22–25),[63] *Kākacaṇḍeśvarīmata* (introductory verses V),[64] Kāṅkāyana (II: gulma 12–18), Kāśyapa (II: cakṣūroga 58–63), Kesarin (II: vātarakta 91–95; āmavāta 50–60), *Kriyākālaguṇottara* (introductory verses V),[65] Kṛṣṇātreya (II: vātarakta 40–49), Mahādeva (II: vājīkaraṇa 93–101), Manthānabhairava (IV.3.197), Nāgārjuna (I.1.17; II: amlapitta 49–67; cakṣūroga 36–40; III.5.52), Nārada (II: arśas 75; yonivyādhi 38–45), Niścalakara (II: glosses ad pāṇḍuroga 29–36 and 41–43; sthaulya 27), *paragrantha* (II: ūrustambha 72–77), Punarvasu (II: bradhnavṛddhi 19),

Rasahṛdaya (II: gandhakaśuddhi at the end of raktapitta), *Rasamaṅgala* (I.1.16),[66] *Rasaratnākara* (II: jvara 124–139 and 286–290; grahaṇī 54–61; mandāgni 53–55; gloss ad kāsa 82–87),[67] *Rasārṇava* (II: ūrustambha 61–69; introductory verses V),[68] *Rasendracūḍāmaṇi* (I.10.51–61),[69] *Śabdārṇava* (II: gloss ad vātavyādhi 161–164), *Śaivasiddhānta* (II: vājīkaraṇa 179–186), Śambhu (I.1.16; II: viṣa 19–28; III.16.54 and 18.48), Śaṃkara (II: arśas 75–112; III.12.70), *Siddhamata* (I.9.47–53),[70] Śiva (III.18.183; IV.1.21ab), Suśruta (I.1.18; II: gloss ad vidradhi 20), Tārā (II: pariṇāmaśūla 28–33), Trivikrama (II: gloss ad pāṇḍuroga 41–43), Trivikramadeva (gloss ad pāṇḍuroga 29–36), *Uḍḍīśatantra* (introductory verses V),[71] Vāgbhaṭa (I.1.18; II: jvara 105),[72] Vāgbhaṭṭa (I, prose between 10.69ab and cd), Vaidyanātha (II: grahaṇī 27–33), *Vaidyasāgara* (I.1.18), Vāsudeva (II: vājīkaraṇa 48–60), Viṣṇu (II: pradara 35–41; rasāyana 32–40), Viśvāmitra (II: kṣudraroga 39–45), *Yogamuktāvalī* (I.1.25–26 and 2.2),[73] *Yogaratnākara* (II: gandhakaśuddhi at the end of raktapitta; āmavāta 50–60), and *Yogaratnākarasamuccaya* (II: gandhakaśuddhi at the end of raktapitta).

Works quoting from or referring to the *Rasaratnākara*[74] are: Ānandabhāratī's *Ānandamālā*,[75] the pariśiṣṭas of the *Ānandakanda*, the *Āyurvedīya Khanijavijñāna*, Basava's *Śivatattvaratnākara*, Bhāvamiśra's *Bhāvaprakāśa*, *Bheṣajasaṃhitā*, *Bṛhannighaṇṭuratnākara*, Caturbhuja's commentary on the *Rasahṛdaya*, Gulrājśarmamiśra's commentary on the *Āyurvedaprakāśa*, Haridattaśāstrin's commentary on the *Rasataraṅgiṇī*, Hazārīlāl Sukul's commentary on the *Rasaratnasamuccaya*, Herambasena's *Gūḍhabodhakasaṃgraha*,[76] Jñārasarāma's version of the *Amṛtasāgara*, Khare's commentary on the *Rasaratnasamuccaya*, *Kūpīpakvarasanirmāṇavijñāna*, Mahādeva's commentary on the *Rasapaddhati*, Mallinātha's commentary on the *Amarakoṣa*, Meghamuni's *Meghavinoda*, Nīlakaṇṭha's *Basavarājīya*, *Pāradasaṃhitā*, Rāmacandra's *Rāmavinoda*, *Rasadhātuprakāśa*, *Rasakakṣāpuṭa*, *Rasakāmadhenu*, *Rasaratnasamuccaya*, *Rasārṇavakalpa*,[77] *Rasasindhu*,[78] *Rasatattvavivecana*, *Rasavidyāmahārṇava*, *Rasāyanasaṃgraha*, *Rasayogasāgara*, *Rasendrakalpadruma*, *Rasendrasambhava*, *Rasoddhāratantra*, the bhasmapiṣṭiprakaraṇa of the *Rasoddhāratantra*, Āśubodha and Nityabodha Senagupta's commentary on the *Rasaratnasamuccaya*, Devendranātha and Upendranātha Senagupta's *Āyurvedasaṃgraha*, Somadevaśarman's commentaries on the *Āyurvedaprakāśa*, Ṭoḍara's *Āyurvedasaukhya*, Trimalla's *Bṛhadyogataraṅgiṇī*, *Vaidyakasaṃgraha*, Vinodalāla Sena's *Āyurvedavijñāna*, and *Yogaratnākara*.

Verses from the *Rasaratnākara* form part of the *Ānandakanda* and *Rasajalanidhi*.

The *Rasaratnākara* was one of the sources of the *Ma'din al-Shifā'*.[79]

A *Ratnākara* that may or may not be Nityanātha's *Rasaratnākara* is quoted or referred to in Ṭoḍara's *Āyurvedasaukhya*,[80] the *Rasendrakalpadruma*, the *Śāligrāmanighaṇṭu*, and Vaidyacintāmaṇi's *Prayogāmṛta*.

Nityanātha is quoted or mentioned in Ānandabhāratī's *Ānandamālā*, the *Bheṣajasaṃhitā*, Caturbhuja's commentary on the *Rasahṛdaya*,[81] Dattarāma's *Rasarājasundara*,[82] Dattātreya's *Rasacaṇḍāṃśu*,[83] Deveśvara's *Rasendraratnakoṣa*,[84] Govindarāma's *Rasasaṃgrahasiddhānta*,[85] Haridattaśāstrin's commentary on the *Rasataraṅgiṇī*, the *Haṭhayogapradīpikā*, Hazārīlāl Sukul's commentary on the *Rasaratnasamuccaya*, Herambasena's *Gūḍhabodhakasaṃgraha*, the *Kāmaratna*, Khare's commentary on the *Rasaratnasamuccaya*, the *Lakṣmaṇotsava*, Mādhava's *Āyurvedaprakāśa*, the *Nṛsiṃhanidāna*, the *Pāradasaṃhitā*, Raghunātha's *Sārasaṃgraha*, Rāmakṛṣṇa's *Rasarājaśaṃkara*,[86] Rāmanātha's *Yogamahārṇava*,[87] Rāmasena's *Rasasārāmṛta*, the *Rasaratnadīpikā*, *Rasaratnasamuccaya*, *Rasendracintāmaṇi*, *Rasendrakalpadruma*,[88] *Rasendrasārasaṃgraha*, Śālagrāma's *Dhanvantari*,[89] Śālinātha's *Rasamañjarī*,[90] Ṭoḍara's *Āyurvedasaukhya*, and Trimalla's *Bṛhadyogataraṅgiṇī*.[91]

The Rasaratnākarakṛt is quoted in the *Āyurvedaprakāśa*.

Nityanāthasiddha is mentioned in Brahmānanda Bhāratī's *Puruṣārthaprabodha*,[92] Raghunātha's *Sārasaṃgraha*, and Śrīnivāsa's *Haṭharatnāvalī*.[93] A work called *Nityanāthīya* is quoted in the *Basavarājīya*.

Special features

The Rasakhaṇḍa

Eight doṣas of mercury are distinguished: nāga, vaṅga, mala, vahni, cāñcalya, viṣa, giri, and asahyāgni (1.27–29ab), although seven kañcukas are also referred to (2.9).

Chapter two enumerates the plants, plant products and some other substances employed in the killing of mercury (māraṇauṣadhi): amṛtā, ardhacandrikā, arka, balā, bhṛṅgarāj, bhūkadamba, brahmadaṇḍī, cakramarda, caṇḍālinī, citraka, devadālikā, gokṣura, hastiśuṇḍī, jātī, jayantī, kākamācī, kākatuṇḍikā, kanda, kanyā, kaṭutumbī, koṣātakī, kuraṇṭaka, lajjālī, lākṣā, lāṅgalī, meghanādā, nīrakaṇā, paṭu, raktāgranirguṇḍī, ravipriyā, sahadevikā, śarapuṅkhikā, sarpākṣī, snuh, śuṇṭhī, tṛṇamustikā, vajravallī, vārāhī, vastā, viṣamuṣṭi, and viṣṇukrāntā (2.15–20).

Chapter three contains a list of the niyāmaka plants and substances: ahaskara, ākhuparṇikā, bhṛṅgarāj, brahmadaṇḍī, ciñcikā, citraka, dhattūra, grīṣmasundara, guḍūcī, haṃsapadī, haridrā, harītakī, hastiśuṇḍī, hiṅgu, indravāruṇī, kākajaṅghā, kākamācī, kañcukī, kokila, kṣīriṇī, kuñcī, kuraṇṭaka, mahārāṣṭrī, mākṣika, maṇḍūkaparṇī, matsyākṣī, mayaṅkā, mṛgadūrvā, muṇḍī, mūrvā, mūṣalī, padmaka, pāṭalī, pota, puṅkhā, raktacitraka, saindhava, sāmbhara, śarapuṅkhikā, sarpākṣī, śatāvarī, śigru, śikhiśikhā, somavallī, śūraṇa, svayambhūkusuma, śvetārka, śvetavarṣābhū, tagara, tilakarṇikā, triparṇikā, utpala, vajrakandā, vajralatā, vandhyā, varṣābhū, viṣṇukrāntā, vraṇaghnī, vṛścikālī, vyāghrapādī, and yakṣalocana (3.34–41).

Chapter ten mentions eight poisonous plants that may be used by a physician: kūrma, mustaka, saktuka, sarṣapāhvaya, śṛṅgī, śvetaśṛṅgī, vālaka, and vatsanābha; ten poisonous substances are to be avoided: dardura, granthi, hālāhala, hāridra, kālakūṭa, karkaṭa, keśava, markaṭa, meṣaśṛṅgī, and raktaśṛṅgaka. (10.38–40). The sālasārādigaṇa, employed in bhāvanā, consists of aguru, arjuna, asana, the two types of candana, dhava, gardabhāṇḍa, kālīya, the two types of karañja, karkaṭa, khadira, the two types of lodhra, pūga, pūtika, the two types of sāla, and śirīṣa (10.69–71).

Some noteworthy names of plants occurring in the Rasakhaṇḍa are: kākamañjarī (3.26), kāntamukha (5.37), kova (5.28), and nāgavandhyā (5.39).

The Rasendrakhaṇḍa

The arrangement of the diseases in the *Rasendrakhaṇḍa* largely agrees with the *Mā-*

dhavanidāna, apart from the addition of jvarātīsāra, jaratpittaśūla, urograha, bradhna, snāyuka, somaroga, and rasājīrṇa to the list of Mādhava's diseases; separate chapters on pānātyaya, yonikanda[94] and mūḍhagarbha are absent. The chapter on urograha is identical with the chapter on this disease in Vaṅgasena's *Cikitsāsārasaṃgraha*; the verses on somaroga are partly the same as those in Vaṅgasena's work. The chapter on women's diseases has verses on the prognostic significance of the day of the week on which a woman begins to menstruate (38–45)[95] and on the development of the embryo (80–85); it contains specific recipes against śūla in each of the ten months of pregnancy (99–116) and verses on eight malpositions (126–127). The chapter on children's diseases mentions disorders called cora (16–19) and paścādruja (48). The chapter on poisoning enumerates twenty-five poisons of vegetable origin (19–28).

Some noteworthy names of plants mentioned in the Rasendrakhaṇḍa and its glosses are: ābhā (bhagna 7), āhā (vātavyādhi 39), balāhaka (jvara 180; gloss: = mustaka), cāraṭī (unmāda 22; gloss: = kumbhāḍu), celaka (vātavyādhi 135; gloss: = guvākatvac), coraka (unmāda 22; gloss: = corahelī),[96] dahanaviṭapī (nāsāroga 85; gloss: = lāṅgalī), gauraharidrā (śārīravraṇa 11; gloss: = dāruharidrā), kuṭhāraka (śārīravraṇa 20), lāṅgalīdvaya (unmāda 23; gloss: = rāsnā and gandharāsnā), malapū (bhagandara 2; gloss: = kṛṣṇodumbara), pāṣāṇa (aśmarī 4; gloss: = kulattha), and suraṅgī (karṇaroga 3; gloss: = raktaśobhāñjana).

The Vādikhaṇḍa

The *Vādikhaṇḍa* enumerates six substances called śakti: vajra, vaikrānta, vajrābhra, kāntapāṣāṇa, ṭaṅkaṇa, and bhūnāga (1.56). The uparasas consist of: gandha, tālaka, kāsīsa, (manaḥ)śilā, kaṅkuṣṭha, bhūkhaga, rājāvarta, and gairika (1.57).[97] The mahārasas are rasaka, vimalā, tāpya, capalā, tuttha, añjana, hiṅgula, and sasyaka (1.58–59ab).[98]

The names of the twenty-seven Rasasiddhas are: Bali, Bāṇāsura, Candrasena, Carpaṭi, Govinda,[99] Hara, Indradyumna,[100] Kāmalin,[101] Kāpālika, Kapila, Khaṇḍa, Lampaṭa, Loka,[102] Māṇḍavya, Nāgabuddhi, Nāgārjuna, Naravāhana, Ratnaghoṣa, Śambhu, Śārada, Subuddhi, Surānanda, Śūrāsenaka,[103] Tāttvika,[104] Vāḍava,[105] Vyālācārya, and Yaśodhara (1.66–70).[106]

The group of divine drugs (divyauṣadhi) is composed of agnidamanī, ajakarṇī, ajāmārī, ākhukarṇī, aṅkola, apāmārga, arka, badarī, bākucī, balā, bhūkadamba, bhūmipāṭalī, bilva, brahmadaṇḍī, brāhmī, bṛhatī, cakramarda, caṇā, cāṇḍālī, candralatā, cāṅgerī, the three kinds of citraka, devadālī, ekavīraka, eraṇḍa, garuḍī, ghanā, gojihvā, gorambhā, guñjā, haṃsapādī, hastimūlikā,[107] hemavallī, hiṅgu, indravāruṇī, jalakumbhī, jātī, jayā, kadalī, kākajaṅghā, kākamācī, kākatuṇḍikā, kālikā, kāñcānana, kaṅguṇī, kanyā, kāravallī, karavīra, kārpāsa, kaṭutumbī, khaṇḍajārī, kokilākṣaka, kośātakī, kṛṣṇadhattūra, kṛṣṇajīrā, kṛṣṇatulasī, kṣīrakandaka, kukkuṭī, kumbhī, lajjarī, lākṣā, lakṣmaṇā, lāṅgalī, mahābalā, mahārāṣṭrī, maṇḍūkaparṇikā, mañjiṣṭhā, markaṭī, maruvaka, meghanāda, meṣaśṛṅgī, mīnākṣī, muṇḍī, mūrvā, muśalī, nāgabalā, nāgavallikā, nīlī, niśā, padmacāriṇī, palāśa, pātālagaruḍī, pathyā, peṭārī, pīluka, pūgī,[108] śvetā and raktā punarnavā, puṅkhā, puṣkaramūlaka, raktasnuhī, rambhā, rudantī, sahadevikā, saindhava, śākavṛkṣa, śamī, śaṅkhapuṣpī, sarṣapa, sarpākṣī, śatāvarī, śikhiśikhā, sinduvārikā, snuhī, somalatā, śuṇṭhī, sūraṇa, sūryavartaka, svarṇapuṣpī, śvetāparājitā, tilaparṇī, triparṇikā, udumbara, vacā, vajralatā, vāla,[109] vanarājaka, vanasūraṇa, vandhyākarkoṭakī, vartulapattrakā, vijayā, viṣamuṣṭi, viṣṇukrāntā, vṛścikālī, vyāghranakhī, yavaciñcī, all the kṣīravṛkṣas, and the various kinds of poisonous substances (2.14cd–28).

The plants called siddhamūlikā, used in the jāraṇa of mica, are: agni, agnimathanī, bṛhatī, haṃsapādī, indravāruṇī, kadalī, khaṇḍajātī, kumārikā, lāṅgalī, maṇḍūkī, mūṣā, śaṅkhapuṣpikā, sarpākṣī, vajrī, vandhyākarkoṭakī, and vyāghrapādī (12.53–54).

A cakrayantra (6.75cd–76ab) and gaurīyantra (15.103; 16.115) are referred to. (Anu)vāsana is regarded as a distinct saṃskāra (11.35). Eight varieties are described of mākṣikasattva: resembling guñjā (seeds),[110] indragopa, a gem (maṇi), śukatuṇḍa (the beak of a parakeet), śulba (copper), kiṃśuka flowers, and lākṣā (lac), and, finally, a variety called dhauta (washed) (13.22–36). Two varieties of manaḥśilāsattva are distinguished: resembling gold and the rays of the sun in the early morning (13.37–41). Four varieties of capalā are mentioned: red, yellow, white, and black (16.90).

Some interesting names of plants are: bhūmyapāmārga (12.45), karuṇī (6.70), kuḍuhuñjikā (4.33), mahindī (9.67), muruṇḍī (11.15), nāgakanyā (10.17), ṭeṇṭū (8.45), vasantapuṣpikā (8.22), vasubhadra (20.112), vasubhaṭṭa (20.92), and vegī (17.30).

The Rasāyanakhaṇḍa

The *Rasāyanakhaṇḍa* describes in its first chapter dietary and behavioural rules to be observed prior to and during the use of mercurial preparations for rasāyana purposes. One of the requirements consists of the removal of loṇa- and amladoṣa, caused by the consumption of salty (lavaṇa) and sour (amla) articles of food (1.4–6ab). Paying homage to the Kumārīs[111] and Yoginīs[112] is also recommended (1.8).

The ritual connected with the consumption of kālāntarasa prescribes sexual intercourse with a menstruating woman and the collection of the mixture of male and female procreatory fluids (rajobīja) that is called gagana (3.197cd–199ab).

The consumption of fishes that can live on wet soil (vālukāmatsya, vālukāmīna, sthalamīna)[113] is repeatedly recommended for their aphrodisiac properties (6.80; 7.38). They are found on the shore of the Western ocean, near the Amaracaṇḍeśvara temple (prose between 7.38 and 39). Pills in the form of leeches (jalaukā) are employed in order to suppress ejaculation during intercourse (7.39–55).

Geographical names and names of deities connected with particular localities, mentioned in chapter eight, are: Acaleśa (154: a mountain), Acchataila (133: a mountain), Alampura (63, 64: a town),[114] Amareśvaradeva (155),[115] Āvartadeva (36), Bhīmapāduka (63: a village), Bhṛgupātana (129, 132), Brahmeśvareśvara (56), Caṇḍikā (58, 168), Candraguptaprākāra (135), Chelikā (122), Gaṇeśvara (108), Ghaṇṭāsiddheśvara (5, 9), Guṇḍiprabhā (144: probably a mountain), Guṭikāsiddhakeśvara (182), Hastiśilā (41),[116] Hastiśiras (42), Ileśvara (153),[117] Īśvara (71), Jāleśvara (33),[118] Kadambeśvaradeva (116), Kākalerī (176: a forest), Kālavarṇeśvara (148), Kokilābila (24), Koṭīśvara (153),[119] Kuṇḍaleśvara (38, 120),[120] Liṅgaparvata (166: a mountain),[121] Mahānandeśvara (147), Maheśa (67), Mallikārjuna (2, 129, 135, 173),[122] Mallinātha (5, 10),[123] Maṇipalli (20: a village), Maukalī (89: a Yakṣiṇī), Nandana (87, 94, 96, 98, 99, 100: a forest),[124] Nīlavana (142: a forest), Parameśvara (85),

Paṭāhakarṇa (159), Piṇḍādevī (169), Puruṣeśvara (39), Puṣpagiri (121: a mountain),[125] Rāmeśvara (35),[126] Śaila (182),[127] Śailarāja (159),[128] Śambhu (1, 185), Sarveśvara (173), Śiva (43), Śrīgiri (185),[129] Śrīśaila (8, 14, 33, 56, 67, 140, 144, 147, 149, 158, 184),[130] Sureśvara (33), Svargapurī (29), Tambīpura (146),[131] Tripurāntakadeva (14, 19, 24, 29, 31),[132] Turaleśvara (149), Umāparvata (150: a mountain), and Yogeśvarī (64).

The Rasāyanakhaṇḍa contains a rather large number of mantras.[133]

Some noteworthy names of plants are: īśvaraliṅgī (7.23), munimuṇḍikā (5.2), riṭṭhaka (8.40), and vajrakāpālinī (5.5). An interesting substance is sābuṇa (5.29).[134]

The author

The author mentions his name as Nityanātha (I.1.25). The colophons of the MSS and editions call him Nityanātha or Nityanāthasiddha,[135] son of Pārvatī.[136] More information is not available.[137]

The author refers to his teacher (I.1.22; III.19.140; 20.62) without disclosing his name.

Nityanātha is regarded as one of the Rasasiddhas.[138]

Works ascribed to Nityanātha, apart from the *Rasaratnākara*, are: (1) *Indrajālakautuka*;[139] (2) *Kakṣapuṭa*;[140] (3) *Kakṣapuṭīvidyā*;[141] (4) *Kāmaratna*;[142] (5) *Kāmaratnatantra*;[143] (6) *Kautūhalavidyā*;[144] (7) *Mantrasāra*;[145] (8) *Nityanāthatantra*;[146] (9) *Nityanāthīya*;[147] (10) *Rasaratnamālā*;[148] (11) *Rasaratnasamuccaya*;[149] (12) *Śabaracintāmaṇi*;[150] (13) *Siddhasiddhāntapaddhati*;[151] (14) *Siddhisāvara*;[152] (15) *Tantrakoṣa*;[153] (16) *Vandhyāvalī*;[154] (17) *Yogasāra*.[155] G. Hāldār[156] associates Nityanātha with the *Aśvinīkumārasaṃhitā*.

Some formulae ascribed to Nityanātha are: gulmavajriṇīvaṭī[157] and kāmeśvaramodaka.[158]

An authority called Siddhanātha may be the same as Nityanātha. The *Kāmaratna* and *Yogasāra* are sometimes ascribed to him. Siddhanātha is quoted in the *Aṣṭamahāmātrā*. He is credited with some formulae: divyarasāyana,[159] lokanāyakarasa[160] and udayabhāskararasa.[161]

Date

Nityanātha's *Rasaratnākara* has been assigned to the period between the third century B.C. and the fourth century after Christ,[162] the twelfth,[163] twelfth or thirteenth,[164] thirteenth,[165] thirteenth or fourteenth,[166] fourteenth,[167] and fifteenth century.[168] D.G. White expressed as his opinion that Nityanātha lived slightly later than Gorakṣanātha but earlier than the author of the Bhūtiprakaraṇa of the *Gorakṣasaṃhitā*, in the late thirteenth century.[169]

This uncertainty concerning the chronological position of the work can be cleared up by taking into consideration the works and authors mentioned in it and those referring to it. The reference to Gorakṣanātha indicates that the *Rasaratnākara* is later than the thirteenth century, the reference to the *Kākacaṇḍeśvarīmata* that it is posterior to

about A.D. 1400. Nityanātha's work was well known in the sixteenth century, as appears from references to and quotations from it in Ānandabhāratī's *Ānandamālā*, Bhāvamiśra's *Bhāvaprakāśa*, Ṭoḍara's *Āyurvedasaukhya*, and Miyān Bhūwah's *Ma'din al-Shifā'*. Nityanātha's date can be pushed back further because he was known to Gopālakṛṣṇa, the author of the *Rasendrasārasaṃgraha* (last quarter fifteenth century) and to the author(s) of the *Lakṣmaṇotsava* (A.D. 1449/50).

The evidence points to the first half of the fifteenth century as the period of composition of Nityanātha's *Rasaratnākara*. This dating is supported by the earliest MS of the work, completed in A.D. 1473.[170]

Chapter 9
Rasaratnasamuccaya

The *Rasaratnasamuccaya* by Vāgbhaṭa[1] is an extensive manual of alchemy and iatrochemistry.

Contents[2]

The work consists of about 3,870 verses, arranged in thirty chapters (adhyāya); it can be divided into two parts: chapters one to eleven, dealing with alchemy, and chapters twelve to thirty, devoted to the treatment of diseases (iatrochemistry).

Chapter one (rasotpatti; 88 verses) begins with a maṅgala addressed to Śiva as the foremost physician of the world (jagatpradhānabhiṣaj) (1). It proceeds with an enumeration of the twenty-seven Rasasiddhas and a series of authors on rasaśāstra, whose works were studied by the compiler of the *Rasaratnasamuccaya* (2–8). These verses are followed by a description of the Himālaya and the abode of Śiva (10–21). The remaining subjects of the chapter are: the praise of mercury (22–41),[3] its ability to bestow jīvanmukti (42–59),[4] its origin (60–66),[5] its names and varieties (67–79), the five gatis of mercury and their removal (80–87), and the origin of cinnabar (88).[6]

The subjects of chapters two to ten are: the mahārasas (2; 163 verses),[7] uparasas (3; 158 verses),[8] ratnas (4; 84 verses),[9] lohas (5; 243 verses),[10] the initiation of a pupil (6: śiṣyopanayana; 64 verses),[11] the laboratory (7: rasaśālā; 37 verses),[12] technical terms (8: paribhāṣā; 101 verses),[13] yantras (9; 87 verses),[14] mūṣās, koṣṭhīs, puṭas and groups of substances (10; 97 verses).[15]

Chapters two to five, seven, eight and ten are for the greater part borrowed from the *Rasendracūḍāmaṇi*.

Chapter eleven (135 verses)[16] describes two systems of weights (mānaparibhāṣā; 1–13), lists the eighteen saṃskāras (14–16), deals with the doṣas of mercury (20–25), and gives an account of a number of saṃskāras and related subjects (29–135). These saṃskāras and related subjects are: svedana (29), mardana (30–33), mūrchana (34–35), utthāpana (36), pātana (37–46), rodhana (48), niyāmana (49), dīpana (50–52), the rasamūlikā plants (53–59), bandha (60–107), strīdrāvaṇa (108–112), killing (māraṇa) of mercury (113–121), the uses of the ashes (bhasman) of mercury (122–127), two series of kakāras (128–130),[17] and the treatment of disorders caused by mercurial preparations (132–135).

Chapters twelve to twenty-five deal with the aetiology, symptomatology and treatment, in particular by means of rasayogas, of a long series of diseases, arranged in a partly unprecedented way.[18] Chapter twenty-six (59 verses) is devoted to rasāyana,

chapter twenty-seven (144 verses) to vājīkaraṇa.

Chapter twenty-eight (lohakalpa; 104 verses) describes thirty-six different lohakalpas, preceded by verses on the purification and killing of the metals (loha) used in these kalpas. Chapter twenty-nine (viṣakalpa; 160 verses), in the form of a dialogue between Śiva and Pārvatī, deals with the mythical origin of poison (1–9), thirteen poisonous substances of vegetable origin (10–19), the uses of poisonous substances (20–50), and one hundred and eighteen viṣakalpas (51–159). Chapter thirty (rasakalpa; 138 verses) is concerned with the jāraṇa (1–11) and killing (12–21) of mercury, the uses of its ashes (bhasman) in eighty-six rasakalpas (22–114), and the praise of the expert physician (115–137).

Sources are rarely referred to by the author.[19] The *Rasārṇava* is mentioned at the end of the verses on weights of chapter eleven (11.13). The two series of kakāras of chapter eleven were taken from the *Devīśāstra* (11.128–129) and from a work by Śrīkṛṣṇadeva (11.130). Some of the verses borrowed from the *Rasendracūḍāmaṇi* contain the name of its author, Somadeva;[20] verses with the names of authorities, referred to by Somadeva, are often left out.[21] One method of killing diamonds is attributed to Somasenānī (4.38–40). Rāmarāja's *Rasaratnapradīpa*[22] and the *Rasaratnākara*[23] are quoted according to some of the editors of the *Rasaratnasamuccaya*.

Names of divinities and other authorities associated with particular formulae occur repeatedly in the chapters on treatment; noteworthy are the names of Ātreya,[24] Bhāluki,[25] Nāgārjuna,[26] Nityanātha,[27] and Suśruta.[28]

In spite of the author's silence on the works he consulted and from which he borrowed, some of the sources can be identified.[29] The *Rasahṛdaya* was used in the composition of chapter one.[30] Chapters two to five are mostly from chapters ten to twelve and fourteen of the *Rasendracūḍāmaṇi*.[31] Chapter six has been taken from the Vādikhaṇḍa of the *Rasaratnākara*.[32] Chapters seven and eight correspond to chapters three and four of the *Rasendracūḍāmaṇi*.[33] Chapter nine has a composite structure; it consists of borrowings from the *Rasārṇava*, *Rasendracūḍāmaṇi*, and some other, unidentified, texts.[34] Large parts of chapter ten are from chapters five and nine of the *Rasendracūḍāmaṇi*.[35] Some portions of chapter eleven derive from the *Rasārṇava* and *Rasaratnākara*.[36]

A remarkable feature of the nidāna verses of chapters twelve to twenty-five is that they are not borrowed from the *Mādhavanidāna*, but from some so far unidentified source.

Works quoting from or referring to the *Rasaratnasamuccaya* by name are: Ambikādattaśāstrin's commentary on the *Rasendrasārasaṃgraha*, the pariśiṣṭas of the *Ānandakanda*, the commentary on the *Aṣṭamahāmātrā*, the *Āyurvedīya Khanijavijñāna*, the *Bhāvaprakāśa*,[37] the *Bheṣajasaṃhitā*, the *Bṛhadrasarājasundara*, Devendranātha and Upendranātha Senagupta's *Āyurvedasaṃgraha*, Gulrājśarmamiśra's commentary on the *Āyurvedaprakāśa* and the same author's *Viśikhānupraveśavijñāna*, Haridattaśāstrin's commentary on the *Rasataraṅgiṇī*, Lakṣmīrāma's commentary on the *Siddhabheṣajamaṇimālā*, Mādhava's *Āyurvedaprakāśa*, Mahādeva's commentary on the *Rasapaddhati*, Narendranāthamitra's *Capalanirṇaya* (in the *Rasataraṅgiṇī*), the *Pāradasaṃhitā*, *Rasadhātuprakāśa*, *Rasakāmadhenu*, *Rasamitra*, *Rasatattvavivecana*, *Rasavidyāmahārṇava*, *Rasayogasāgara*, *Rasendrakalpadruma*, *Rasoddhāratantra*, *Ra-*

tnākarauṣadhayogagrantha, Śivadatta's auto-commentary on the *Śivakoṣa*, Somadevaśarman's commentary on the *Āyurvedaprakāśa*, the *Vaidyakasaṃgraha*, Yādavajī Trikamajī's *Rasāmṛta* and *Siddhayogasaṃgraha*, the *Yogaratnākara*, and Cat. Madras Nr. 13198.[38]

The *Rasaratnasamuccaya* was one of the sources of *Āyurvedaprakāśa*, *Kūpīpakvarasanirmāṇavijñāna*, *Rasavidyāmahārṇava*, and *Rasendrasambhava*.

The author of the *Rasaratnasamuccaya* is quoted as Rasavāgbhaṭa in the *Āyurvedābdhisāra*, Gulrājśarmamiśra's commentary on the *Āyurvedaprakāśa*, Haridattaśāstrin's commentary on the *Rasataraṅgiṇī*, Mādhava's *Āyurvedaprakāśa*, Mahādeva's commentary on the *Rasapaddhati*, and the *Rasakāmadhenu*.[39] He is cited as Vāgbhaṭa in Mādhava's *Āyurvedaprakāśa*.

The *Rasaratnasamuccaya* is quoted anonymously in the *Rasajalanidhi* and *Rasendrapurāṇa*.

Special features

The names of the twenty-seven Rasasiddhas[40] mentioned in chapter one of the *Rasaratnasamuccaya* are:[41] Ādima,[42] Bhāskara,[43] Brahmā,[44] Candrasena,[45] Gomukha,[46] Govinda,[47] Hari,[48] Indrada,[49] Kambali,[50] Kāpālika,[51] Kapālin,[52] Khaṇḍa,[53] Lampaka,[54] Laṅkeśa,[55] Māṇḍavya,[56] Matta,[57] Nāgabodhi,[58] Nāgārjuna,[59] Naravāhana,[60] Ratnakośa,[61] Śambhu,[62] Sāttvika,[63] Surānanda,[64] Śūrasenaka,[65] Viśārada,[66] Vyāḍi,[67] and Yaśodhana[68] (1.2–5ab).

The list is followed by the names of authors on rasaśāstra whose works were consulted by the son of Siṃhagupta, who wrote the *Rasaratnasamuccaya*. The authors mentioned[69] are: Bhairava,[70] Bhāluki,[71] Harīśvara,[72] Kākacaṇḍīśvara,[73] Mahādeva,[74] Maithilāhvaya or Maryalāhvaya,[75] Manthānabhairava,[76] Nandin,[77] Narendra,[78] Rasāṅkuśa,[79] Rasendratilaka,[80] Ṛṣiḥśṛṅga,[81] Svacchandabhairava,[82] Vāsudeva,[83] and Yogin[84] (1.5cd–8).

The second list of twenty-seven Rasasiddhas (6.51–55), borrowed from the *Rasaratnākara* (III.1.66cd–71ab),[85] consists of: Āgama,[86] Bali,[87] Bāṇāsura,[88] Candrasena,[89] Carpaṭi,[90] Govinda,[91] Indradhūma,[92] Kāmāri,[93] Kāpālika,[94] Kapila,[95] Khaṇḍa,[96] Lampaṭa,[97] Laṅkā,[98] Māṇḍavya,[99] Muniśreṣṭha,[100] Nāgabuddhi,[101] Nāgārjuna,[102] Naravāhana,[103] Ratnaghoṣa,[104] Śambhu,[105] Śārada,[106] Subuddhi,[107] Surānanda,[108] Śūrasenaka,[109] Tāntrika,[110] Vyālācārya,[111] and Yaśodhana.[112]

Five gatis of mercury are described: jalaga, haṃsaga, malaga, dhūmaga, and jīvagati; the first four are visible, whereas jīvagati is invisible (1.81–83). The eight mahārasas are: abhraka, vaikrānta, mākṣīka, vimala, adrija (= śilājatu), sasyaka, capala, and rasaka; rājāvarta, included in this group in the *Rasendracūḍamaṇi*, is omitted, while capala has been added (2.1); mākṣika or tāpya is described as found along the river Tāpī and in the countries of the Cīnas, Kirātas and Yavanas (2.73). The eight uparasas consist of: gandhāśman (= gandhaka), gairika, kāsīsa, kāṅkṣī, (harit)āla, (manaḥ)śilā, añjana, and kaṅkuṣṭha (3.1); the eight sādhāraṇarasas are: kampilla,[113] gaurīpāṣāṇa, navasāraka, kaparda, vahnijāra, girisindūra, hiṅgula, and mṛddāraśṛṅga (3.126–127). Rājāvarta is regarded as one of the ratnas (4.75–81).

Chapter eleven discusses two systems of weights (11.1–13), the second of which is related to the Māgadha system of āyurveda.[114]

The eighteen saṃskāras enumerated are svedana, mardana, mūrchana, utthāpana, patana, rodha, niyāmana, saṃdīpana, gaganabhakṣaṇamāna, saṃcāraṇā, garbhadruti, bāhyadruti, jāraṇā, grāsa, sāraṇa, saṃkrāmaṇa, vedha, and śarīrayoga (11.14–16). The first eight saṃskāras, necessary for the preparation of medicinally useful substances, are described in more detail; the last ten saṃskāras, necessary for aurifaction, are neglected. Twelve doṣas of mercury are distinguished: three naisargikadoṣas: viṣa, vahni, mala; two yaugikadoṣas: nāga and vaṅga; seven aupādhikadoṣas or kañcukas: parpaṭī, pāṭanī, bhedī, drāvī, malakarī, andhakārī, and dhvāṅkṣī (11.20–24).

Twenty-five types of bandha of mercury are distinguished; a twenty-sixth type, called jalūkābandha, recognized by some authorities, is added (11.60–64). The twenty-five types are:[115] haṭha-,[116] āroṭa-,[117] ābhāsa-,[118] kriyāhīna-,[119] piṣṭikā-,[120] kṣāra-,[121] khoṭa-,[122] poṭa- or parpaṭī-,[123] kalka-,[124] kajjalī-,[125] sajīva,[126] nirjīva-,[127] nirbīja-,[128] sabīja-,[129] śṛṅkhalā-,[130] druti-,[131] bāla-,[132] kumāra-,[133] taruṇa-,[134] vṛddha-,[135] mūrti-,[136] and mahābandha[137] (11.65–89). The jalūkābandha is elaborately described (11.93–107).[138]

The diseases, the treatment of which is dealt with in chapters twelve to twenty-five, are enumerated in the introductory verses of chapter twelve (12.1–8):[139] jvara, raktapitta, kāsa, śvāsa, hidhmā, vaisvarya (= svarabheda), kṣaya (= rājayakṣman), aroca, praseka, chardi, hṛdroga, tṛṣṇā, madyodbhava (= madātyaya), arśas, udāvarta, atisāra, grahaṇyarti, pravāhin, visūcī, vahnimāndya (= agnimāndya), mūtrakṛcchra, aśmarī, meha, somaroga, piḍikāḥ, vidradhi, vṛddhi, gulma, śūla,[140] udara, pāṇḍu, śopha, visarpa, kuṣṭha, śvitra,[141] nabhasvat (= vātavyādhi), vātāsra (= vātarakta),[142] vandhyā (infertility), garbhiṇīruj, sūtikāroga, bālaroga,[143] unmāda, apasmṛti, netraroga, karṇaroga, nāsāroga, āsyaroga (= mukharoga), śiroroga, vraṇa, bhaṅga, bhagandara, granthi and related diseases,[144] kṣudraroga, and guhyaroga.[145]

Noteworthy features of the nosology of the *Rasaratnasamuccaya* are: a disease called lohala (15.78);[146] seven types of vardhma (18.11);[147] a list of the eight mahārogas at the beginning of chapter twenty-one: vātavyādhi, aśmarī, kuṣṭha, meha, udara, bhagandara, arśas and grahaṇī (21.1); descriptions of śītavāta (21.2), sparśavāta (21.12) and raktavāta (21.42); nine types of vandhyā: ādivandhyā, raktajā, pittajā, kaphajā, saṃnipātajā, bhūtajā, devajā, abhicārajā (22.1–2); a male, incapable of procreation, is called vandhya (22.3); women with four more types of disorders of fertility are called garbhasrāvī,[148] mṛtavatsā,[149] strīprasūti,[150] and kākavandhyā (22.4);[151] the list of nose diseases mentions six varieties of pīnasa (24.19);[152] kṣayajaśiroroga and anantavāta are absent from the list of diseases of the head (24.71); the treatment of baldness and premature greying of the hair are discussed after the section on diseases of the head (24.82–90); khaṇḍakeśa and cācāroga are used as synonyms of baldness (indralupta; 24.82 and 87); the list of kṣudrarogas consists of vyaṅga, kacchapa, nīlikā, kunakha, viddha,[153] utkoṭha, koṭha,[154] alasa, kakṣā, ruddhaguda, prasupti,[155] vivṛtā, visphoṭa, valmīka, vispha,[156] kadara, ajagalli, jatumaṇi, andhālajī, rājikā, kṣudrā,[157] lāñchana, śarkarā, yavaprakhyā, agnirohiṇī, jālāśmagardabha,[158] vidārī, masūrikā, padmakaṇṭaka, gardabhī, śarkarārbuda, maṣa, ānandadūṣikāḥ,[159] gaṇḍāhvayā,[160]

panasikā, and irivellikā (25.1–2).

Some interesting technical terms are acalā (= manaḥśilā), kaṅkaṇā (= gandhaka) and vaiṣṇavīsenā (= haritāla) (12.97).[161]

Some noteworthy names of plants and substances of vegetable origin are: ādhārī (17.47), agniparṇī (14.73),[162] agniyugma (15.65),[163] ambhodhi (30.64),[164] ari (17.68),[165] bhūdāru (18.163),[166] candrāvatī (11.94),[167] ciratikta (16.68),[168] dhvaṃsī (10.94),[169] gajāṅkinī (16.78),[170] gañjā (15.76), harilatā (14.73),[171] hiyāvalī (16.149; 17.113; 21.28),[172] hiyāvalli (12.100),[173] jalamaṇḍapikā (18.216),[174] jayāyuga (19.35),[175] kādi (12.97),[176] kāmā (11.108 and 111),[177] kambukī (11.54),[178] kāpālī (10.94),[179] karālī (22.124),[180] karivijaya (17.69),[181] khaṇḍī (22.72),[182] kinī (15.76),[183] kurkuṭī (20.36),[184] mābāṇa (18.43),[185] mahābharī (18.19),[186] mahābherī (30.64),[187] mahiṣī (10.95),[188] meha (17.68),[189] nura (20.204),[190] peṭakārī (17.6),[191] phalikā (17.17),[192] raktaśākinī (16.147; 18.97),[193] rāmaśītalikā (13.10),[194] śākandha (18.131),[195] svarāṃśikā (20.198),[196] tīkṣṇaparṇikā (16.93),[197] tittirīphala (12.58),[198] and uttamakaṇṭikā (10.86).[199]

The author

The author does not mention his name, but refers to himself as the son of Siṃhagupta (1.8).[200] The *Rasaratnasamuccaya* is generally attributed to an author called Vāgbhaṭa.[201] The question whether or not this Vāgbhaṭa is identical with the author(s) of the *Aṣṭāṅgahṛdayasaṃhitā* and *Aṣṭāṅgasaṃgraha*, discussed by many scholars,[202] is no longer relevant, since it has been clearly established that the *Rasaratnasamuccaya* is much later than the two āyurvedic treatises.

The contents of the treatise indicate that the author was a Hindu, although some scholars claim that the maṅgala is of a Buddhist character.[203]

Date

Scholars defending the view that the son of Siṃhagupta who wrote the *Rasaratnasamuccaya* is the same as the Vagbhaṭa, son of Siṃhagupta, who is the reputed author of the *Aṣṭāṅgahṛdayasaṃhitā* and *Aṣṭāṅgasaṃgraha*, tend to ascribe an early date to the work.[204]

Arguments disproving this identity and supporting a much later date were collected by P. Cordier,[205] Gaṇanāthasena,[206] P.V. Sharma,[207] S. Ārya,[208] and others.[209]

Decisive pieces of evidence are the borrowings from the *Rasārṇava*, *Rasahṛdaya*, *Rasendracūḍāmaṇi* and *Rasaratnākara*, and a formula attributed to Nityanātha (27.115–118).

The reference to somaroga (12.3) implies that the *Rasaratnasamuccaya* is later than Vaṅgasena's *Cikitsāsārasaṃgraha*. The quotations from the *Rasaratnākara* point to a period posterior to the first half of the fifteenth century.

A plant name found in the chapters on therapy indicates that the author of the *Rasaratnasamuccaya* probably belongs to the sixteenth century.[210] The quotations from the *Rasaratnasamuccaya* and Rasavāgbhaṭṭa in Mahādeva's commentary on

Bindu's *Rasapaddhati* prove that he is earlier than the first half of the seventeenth century. The earliest MS known dates from A.D. 1699.[211]

Commentaries

Commentaries in Sanskrit on the *Rasaratnasamuccaya* were written by Cintāmaṇiśarman Khare or Mahādeva Cimaṇājī Āpaṭe Khare, by the brothers Āśubodha and Nityabodha Senagupta, and by Hazārīlāl Sukul.

Cintāmaṇiśarman Khare's commentary,[212] called *Saralārthaprakāśinī*, is an elaborate work, explaining the full text of the *Rasaratnasamuccaya*.

Works and authorities quoted or referred to are: *Aṣṭāṅgahṛdaya* (2, 5), Bhairava (1, 119),[213] *Bṛhadyogataraṅgiṇī* (16), Caraka (2), *Cikitsākalikā* (59), *Gītā* (46), Govinda (1), *granthāntara* (6, 49, 54, 55, 59, 72, 104, 106, 111, 116, 122, 123, 222), *Kāmaratna* (2), *Kuṇḍārka* (67),[214] *Madanavinodanighaṇṭa* (14), Manu (49), *Mārkaṇḍeyapurāṇa* (49), Nāgārjuna (39, 84), *Nāgārjunatantra* (2), *Nighaṇṭa* (39), Nityanātha (1, 2, 53, 65), Pūjyapāda (1, 2), *Purāṇa* (51), *Rājanighaṇṭa* (46), *Rasahṛdaya* (1, 12, 14, 21, 22, 23, 32, 70, 73, 74, 76, 84, 88, 89, 99, 104, 106, 122), *Rasahṛdayaṭīkā* (27, 86), *Rasarājasundara* (13, 97), *Rasaratnākara* (14, 15, 33, 38, 65, 73, 74, 85, 91, 108, 112, 115), *Rasārṇava* (4, 5, 19, 20, 21, 22, 28, 32, 35, 36, 37, 55, 70, 72, 73, 84, 88, 90, 91, 100, 105, 120, 124, 125, 126), *Rasasaṃketakalikā* (20, 63, 76), *Rasasāra* (1, 17, 18, 29, 30, 36, 41, 75, 78, 90, 94, 95, 96, 98, 99, 100, 102, 103, 121, 122, 123, 124, 125), *Rasāvatāra* (117), *Rasendrasārasaṃgraha* (6, 56), Rāvaṇa (2,[215] 8,[216] 32,[217] 40),[218] *Śivaśaktisaṃgamatantra* (22),[219] Somadeva (33), śruti (5, 8), Suśruta (2), Trimalla's *Taraṅgiṇī* (23, 50, 84), Trimallabhaṭṭa (59), *Uḍḍīśatantra* (2), Vāgbhaṭa (2), *Yogaratnākara* (2), and (Trimallabhaṭṭa's) *Yogataraṅgiṇī* (54, 84).

Plants mentioned in the *Rasaratnasamuccaya* are often described; their names in many regional languages are added.[220]

Variant readings are occasionally recorded.[221]

Cintāmaṇiśarman Khare was a Cittapāvana brāhmaṇa of Kauśikagotra, the youngest son of Vāmana and Manūbāī; he was born in a village called Guhāgara, near Ratnāgiri in Koṅkaṇa (Mahārāṣṭra) in the year 1866 or 1867.[222]

The commentary by Āśubodha and Nityabodha Senagupta, called *Rasaratnasamuccayabodhinī*,[223] covers the whole of the *Rasaratnasamuccaya*. This elaborate commentary quotes from or refers to the following works and authories: Amara, Amogha (28.59–83),[224] *Amoghatantra* (5.136–140),[225] Atri (1.56), *Atrisaṃhitā* (2.26;[226] 9.41;[227] 25.58–60),[228] *Bhagavadgītā* (1.44), *Bhāgavata* (1.56; 5.5), *Bhaiṣajyaratnāvalī* (3.52; 24.111–114, 121, 122; 25.58–60 and 98; 27.20 and 115–118), *Bhāratānuśāsanika* (1.6),[229] Bhāvamiśra (5.26, 45, 149; 24.29; 25.38), *Bhāvaprakāśa* (2.1, 37–42, 142; 3.35, 101, 123, 148; 4.27; 5.1 and 102–103; 9.6–8; 10.53–54, 59, 60; 24.12; 28.3; 29.19; 30.71), Bhoja (24.29, 106, 137; 28.59–83),[230] *Brahmavaivarta* (11.1–3), Cakra (22.126, 141, 152, 153; 23.67; 24.85–86, 90, 122; 25.51–52 and 83–85; 28.59–83), *Cakradatta* (22.93–96; 24.93 and 136; 25.42; 28.37 and 41–45,

59–83; 30.31 and 61), *Cakrasaṃgraha* and *Cakrapāṇi(saṃgraha)* (10.80; 12.11; 17.11; 18.68; 22.108; 23.6; 24.13 and 138; 25.4, 45, 50, 73–74, 101–105; 28.59–83; 30.31, 32, 33, 60), Cakṣuṣya (24.71),[231] Caraka, *Devīśāstra* (18.181), *Dravyaguṇa* (30.71), *Gāruḍa* (4.28),[232] *Gītā* (1.44, 48, 51),[233] *granthāntara*, Hārīta (27.1), Kāśyapa (25.106), *Līlāvatī* (10.4),[234] Mādhava (24.105;[235] 28.59–83),[236] Mādhavakara (24.71 and 91),[237] *Madhukośa* and Madhukośakṛt (20, 117–123 and 186; 24.71),[238] Manu (1.47), *Manusaṃhitā* (5.4), *Mātṛkābheda* (5.2), Medinī and *Medinīkoṣa* (10.4; 12.10; 22.116–120; 24.100–101), Nāgārjuna (28.59–83), *Nāradasmṛti* (27.128–144), *Nighaṇṭurāja* (4.50), *Paribhāṣāpradīpa* (8.1; 10.75), *Pātañjala* (28.59–83), Patañjali (5.136–140), *Rājanighaṇṭu* (3.101; 4.1, 2–4, 50, 63–68; 5.2, 150, 194, 206; 6.39; 8.86; 10.71–73 and 82–83; 16.92–96 and 149–151; 18.78–92; 21.26–27; 24.106; 28.3; 30.34), Rāmasena (18.116–123), *Rasakaumudī* (16.129–138), *Rasaratnākara* (1.33; 2.4, 5–8; 5, 99, 100; 15.64, 65; 16.142–145; 17.2–4, 9–10, 11, 19–21, 43–44; 18.70–71, 96–100, 102–103, 116–123, 215–218; 19.14–18, 19–22, 32–34, 42–44, 45–53, 94–95, 99, 100–103, 107–111; 20.22, 41–46, 137–141, 142–146, 147–150, 225–226, 227–228; 21.3–7, 138–140, 152–153, 154, 157, 161, 162–164, 165–166; 22.114; 23.36; 24.10, 75, 92, 100–101, 109, 111–114, 122; 25.21, 51–52, 58–60; 27.14–16, 23–25, 31–38, 115–118; 28.8, 10, 12, 14, 15, 18, 27), *Rasendracintāmaṇi* (1.31–32, 33, 71, 83; 2.5–8, 69; 5.2, 100, 136–140, 150, 225–230; 6.27–57; 8.69, 70, 86, 88;. 9.31–32; 10.53–54; 11.15–16; 12.18; 16.146; 18.116–123; 19.19–22, 90; 20.89–99, 142–146, 215–217; 21.20, 35–39, 162–164; 22.30–40, 41–46; 27.1, 4, 5; 30.7–9, 19–20, 92–95), *Rasendrasāra* (2.13; 8.29; 11.27–28 and 48; 14.2–13; 16.154–156; 17.8, 9–10, 19–21, 135–138, 139–140; 19.14–18; 21.9–11, 20, 35–39, 49, 60, 118–129, 162–164; 24.111–114; 27.20; 29.142–155 and 156),[239] *Rasendrasārasaṃgraha* (1.33, 71, 83; 2.1, 5–8, 14–15, 21, 23, 65; 10.53–54; 12.18; 13.49–50; 14.36–50; 15.64; 16.90–91, 129–139; 17.28–29 and 135–138; 18.66–67, 70–71, 96–100, 102–103, 116–123, 215–218, 219–220; 19.14–18, 19–22, 32–34, 42–44, 90, 100–103; 20.1, 89–99, 151–153, 215–217, 225–226, 227–228; 21.35–39, 118–129, 162–164, 167–168), *Rasendrasāravyākhyā* (18.116–123), *Raseśvaradarśana* (1.76, 77, 78; 6.60), *Ratnamālā* (3.52), Rudra (10.4),[240] *Rugviniścaya* (22.143–144; 25.1–2), Rugviniścayakṛt (23.28),[241] *Śaivasiddhānta* (17.1), *Sārakaumudī* (28.12), Śārṅgadhara (3.96; 4.20; 8.89; 27.26–30), Śāśvata (5.77),[242] *Siddhayoga* (20.35; 22.124; 23.74; 24.87, 94, 107; 25.68, 90, 101–105; 28.39–40, 41–45, 46–50; 29.80–81),[243] Śivadāsa (12.11; 22.126; 24.85–86, 90, 122, 123; 25.42; 28.39–40, 59–83; 29.104–106),[244] *Śivadāsavyākhyā* (24.87; 25.68),[245] Somadeva (8.1), Śrīkaṇṭha (24.91),[246] Śruti, Suśruta, *tantrāntara*, *Tattvacandrikā* (29.104–106),[247] Tattvacandrikākāra (24.41; 28.46–50), *Ṭoḍarānanda* (3.96), Trivikrama (18.116–123), *Vācaspatya* (3.142),[248] Vāgbhaṭa, Vaṅgasena (24.90), Varāha (18.205–214),[249] Varāhācārya (26.22), Vṛnda (24.18, 35, 40, 41, 120),[250], Vyākhyākusumāvalīkāra (28.46–50),[251] and *Yogaratnākara* (2.75–76; 23.45; 24.16–17, 118, 122, 123, 136; 25.37, 38, 39, 88, 93; 28.12 and 27).

The *Bodhinī* is an interesting and useful commentary; it gives much attention to the text of the *Rasaratnasamuccaya*; a large number of variants and parallels are discussed

by the authors, who were Bengali brāhmaṇas, sons of the well-known Jīvānanda Vidyāsāgara.

Hazārīlāl Sukul's *Dīpikā* on the *Rasaratnasamuccaya* quotes from or refers to the following works and authorities:[252] Amara (often), *Ānandāśramīya* (3, 64, 124, 137, 245, 297, 309, 375),[253] Āśubodha (322),[254] *Āyurvedaprakāśa* (53, 88, 91, 105, 133, 147, 168, 202, 269, 276), bhagavantaḥ (24), *Bhāratīyarasāyanaśāstretihāsa* (370, 383),[255] *Bhāṣānibandha* by Mallikhita (285),[256] *Bhāvacintāmaṇi* (419),[257] Bhāvamiśra (412), *Bhāvaprakāśa* (127, 412, 414, 437), Bindu (72, 80),[258] *Brahmapurāṇa* (4), Caraka (45, 64), Caturbhuja (73),[259] Cūḍāmaṇi (39, 42, 74, 95, 146, 151, 152, 158, 192, 195, 210, 227, 230, 239, 247, 370, 376, 410, 411, 412, 445),[260] Dattarāma (369, 421, 424, 425),[261] *Devīśāstra* (483), Dharaṇīdhara (352, 446),[262] Ḍhuṇḍhuka(nātha) (12, 13, 15, 16, 70, 214),[263] Gaṇeśa (290),[264] Gayādāsa (413),[265] *Gītā* (24, 25),[266] Gorakṣa (167), Govinda (123, 449), Govindabhikṣu (361),[267] Govindācārya (188), Govindapādāḥ (3, 15, 47, 70, 71, 97, 325),[268] *granthāntara*, Hariprapanna (102),[269] Haṭhapradīpikākāra,[270] Jīvārāma (31, 113, 293, 399, 421, 422, 424), *Jīvārāmīya* (214, 428),[271] Jyeṣṭhamalla (322, 424, 425),[272] Kālidāsa (9),[273] *Kālikātāpāṭha* (96), *Kālikātīya* (31, 137, 140, 160, 178, 214, 269, 366, 386, 477),[274] *Kāśīya* (449),[275] *Kośa* (17, 294, 296, 309, 322, 468, 484), Kṛṣnadeva (484),[276] Kṛṣṇarāva (7),[277] *Kumārasaṃbhava* (30),[278] *Lauhapaddhati* (234), *Lohapaddhati*, (234, 235), Mādhava (13, 16, 45, 48, 49, 51, 63, 70, 74, 80, 81, 87, 121, 150, 207, 216, 239, 269, 452, 482), Mādhavācārya (188),[279] Mahādeva (38, 74, 75, 80, 154, 158, 410),[280] Medinī (315, 469, 484), *Mujarrabāt-e-Akbarī* (393),[281] Nāgārjuna (106, 159),[282] Nārāyaṇa (88, 135, 136, 137, 165, 174, 239, 266, 322, 357, 361, 412, 414, 439),[283] *Nārāyaṇagrantha* (373), *Nighaṇṭu* (261, 283, 301, 426, 449, 469),[284] Nirañjana (19, 135, 323, 398, 422, 435),[285] Nityanātha (3, 449), Padmanābhasūnu (85, 94, 188, 398),[286] *Padmapurāṇa* (203), *Pāradasaṃhitā* (366, 370, 446),[287] *Pūnīya* (31, 140, 160, 178, 181, 214, 363, 366, 375, 386, 422, 447, 477),[288] *Punīyaṭippaṇa* (111),[289] *Purandararahasya* (167), Raghunātha (113, 162, 165, 176, 267, 328, 365, 395, 444, 468, 484),[290] Raghunāthavyākhyā (137), *Rasadarpaṇa* (168), *Rasahṛdaya* (27, 28, 55, 57, 114, 137, 446),[291] *Rasakāmadhenu* (77, 105),[292] *Rasapaddhati* (76, 83, 101),[293] *Rasaprakāśasudhākara* (105, 114, 116, 136, 140, 182, 188, 275, 276, 446),[294] *Rasarājapaddhati* (446), *Rasarājaśaṃkara* (458), *Rasarājasundara* (106, 182, 188, 365, 425),[295] *Rasaratnākara* (155, 214, 449), *Rasaratnapradīpikā* (123), *Rasārṇava* (64, 65, 67, 69, 81, 104, 200, 200 ka, 204, 230, 297, 340, 365, 426, 446), *Rasasāgara* (372), *Rasasāra* (437, 439),[296] *Rasataraṅgiṇī* (144),[297] *Rasāyanasāra* (76, 77, 266, 450),[298] *Rasendra* (116, 120, 254), *Rasendracūḍāmaṇi* (263, 321, 356, 368, 375, 382, 426),[299] *Rasendrakalpadruma* (446), *Rasendrasārasaṃgraha* (144, 436, 452), Praphulla Rāya (358),[300] *Śabdārthacintāmaṇi* (259, 313),[301] Sadānanda (98, 172),[302] *Śaktyavatāra* (445), Śāligrāma (3, 284, 313, 420, 483),[303] Somadeva (127, 129, 321, 356, 376, 395),[304] Śyāma (206, 208, 224, 225, 252),[305] Śyāmasundarācārya (450), *Ṭoḍarānanda* (393, 402, 457), Umeśa (54),[306] Vāgbhaṭa, *Vaidyādarśa* (414), *Vaidyakaśabdasindhu* (299),[307] *Vaijayantī* (309),[308] *Vaiṅkaṭeśvarīya* (181),[309] *Vāmanapurāṇa* (64), *Veda* (64), *Vedānta*

(18), *Viṣṇudharmottara* (246), *Viśva* (94),[310] Viśveśvarīprasāda (449),[311] Vyāsa (31, 63, 65), Yādava (64),[312] and Yaśodhara (44, 50, 51, 59, 61, 85, 87, 89, 135, 137, 158, 197, 359, 375, 399, 412, 414).[313]

The author of the *Dīpikā* refers to the views of modern scholars,[314] to those of scientists,[315] to the tradition adhered to by himself,[316] etc. The names of plants and substances in various parts of India are repeatedly mentioned.

Hazārīlāl's views are quoted in Gulrājśarmamiśra's commentary on the *Āyurvedaprakāśa*.

The author was a son of Rāmanātha Sukul, of Bharadvājagotra, and lived in a village called Mahuvā near Kānyakubja.[317] He also wrote a work called *Rasendrasampradāya*. He was a teacher at the Paṭnā Āyurvedic College.[318]

Chapter 10
Rasārṇava and *Rasārṇavakalpa*

The *Rasārṇava*

The *Rasārṇava*[1] is one of the earliest and most important treatises on alchemy.

Contents[2]

The *Rasārṇava* consists of about 2,300 verses, arranged in eighteen chapters (paṭala). It is written in the form of a conversation between Śiva and Pārvatī.[3]

Chapter one (tantrāvatāra; 60 verses) is about jīvanmukti,[4] obtained by means of mercury (4–31), the origin of mercury as Śiva's semen (33–36),[5] the good results of venerating the rasaliṅga, the bad effects of despising mercury, the praise of mercury and those who practise the art in the proper way, etc. (37–60).

Chapter two (dīkṣāvidhāna; 133 verses) begins with a description of the characteristics of a qualified guru (2–6), a pupil fit for initiation (7–14), and the female companion to be selected (15–35).[6] It proceeds with an account of the construction of the workshop (maṇḍapa) of the alchemist[7] and the elaborate rituals to be performed (dīkṣā) before beginning the alchemical operations (36–133).

Chapter three (mantranyāsa; 33 verses) continues the description of the preparatory rituals, accompanied by many mantras.

Chapter four (yantramūṣāgnivarṇana; 65 verses) opens with an enumeration of the utensils, apparatus and substances that should be present in the workshop (2–6). A number of yantras are dealt with: dolāyantra (7), jāraṇāyantra (8–14), mūṣāyantra or somānalayantra (15), garbhayantra (16–19), guptayantra (20–25), and haṃsapākayantra (28–29),[8] the various kinds of earth (30–35), and a series of mūṣās: vajramūṣā, varamūṣā, prakāśamūṣā, andhamūṣā, and bhasmamūṣā (36–43).[9] The functions of the rakta-, śukla- and biḍavarga are defined (44–46); substances for sealing a mūṣā (mūṣālepa) are described (47–48), followed by the colours of the flames which are specific for a particular substance (49–51), the characteristics of purified loha (52), definitions of pratīvāpa, niṣeka and snapana (53–54), and lohāvarta (55). The chapter ends with descriptions of koṣṭhakas, the vaṅkanāla, khalla, mardaka (56–60), and, finally, purificatory procedures (56–63).

Chapter five (oṣadhinirṇaya; 45 verses) lists the items of groups of vegetable and other substances employed in alchemical operations: niyāmaka plants (2–7), nirjīvakāraka plants (8–13), māraka plants (14–16), rasabandhakara plants (17–21), drāvaka plants (22–23), krāmaka plants (24–25), plants useful for rasāyana (526), the groups called mūlikā and pañcaratna (27–29), the substances called kṣāra (30), the

groups of substances called amlavarga, pañcalavaṇa, mahāviṣa, upaviṣa, tailavarga,[10] mūtravarga, pittavarga, vasāvarga, viḍvarga,[11] raktavarga, pītavarga, śuklavarga, drāvaṇavarga,[12] and śodhanavarga (31–42).

Chapter six (abhrakādilakṣaṇasaṃskāranirṇaya; 139 verses) deals with abhraka (mica), kānta(loha), vajra and vaikrānta. The subjects of the section on abhraka are: the origin of mica, its four colours (yellow, black, white, and red) and four varieties (pināka, dardura, nāga, vajra), the properties of the four varieties (2–9), the purification of mica (10–13), the extraction of its essence (14–16), and the liquefaction of the essence (druti; 17–39). The section on kānta begins with an enumeration of its five types, their characteristics, properties and uses (40–54); the five types are bhrāmaka, cumbaka, karṣaka, drāvaka and romaka. The subjects that follow are the preparation of sūtaloha (55–57), and the purification and liquefaction of kānta (58–64). Section three, on diamonds (vajra), is concerned with their origin and types (brāhmaṇa, kṣatriya, vaiśya, śūdra; male, female, napuṃsaka), the characteristics, properties and uses of these types (65–78), the purification of diamonds, their killing and liquefaction (79–122). Section four is about the origin of vaikrānta, its seven types (white, yellow, red, dark-blue, dove-coloured, coloured like a peacock's tail, emerald-green) and their uses (123–129), its purification, the extraction of its essence, and liquefaction (130–138).

Chapter seven (mahārasoparasalohalakṣaṇasaṃskāraratnadrāvaṇamāraṇanirṇaya; 154 verses) deals with the mahārasas, uparasas, metals (loha) and gems (ratna). The section on the mahārasas begins with their enumeration: mākṣika, vimala, śaila, capala, rasaka, sasyaka, darada and sroto'ñjana (2); it proceeds with the origin, purification and extraction of the essences of mākṣika and vimala, followed by their medicinal properties and uses (3–17); two varieties of mākṣika are distinguished (yellow and white) and three varieties of vimala (white, yellow and red). The next subjects are śilājatu (= śaila), its origin, varieties (patita and apatita), names, and purification (18–22); the varieties of capala (yellowish, white, reddish, black) and their uses, the etymology of capala, its killing (23–27); rasaka, its three varieties (resembling mṛttikā, guḍa and pāṣāṇa),[13] its purification, the extraction of its essence, its synonyms, the medicinal properties of rasaka and its essence (28–38); sasyaka, its origin, purification, the extraction of its essence, its medicinal properties (39–45); darada (cinnabar), its names and its three varieties (carmāra, śukatuṇḍaka, haṃsapāda),[14] the extraction of mercury from it, its medicinal properties (46–52); sroto'ñjana, its purification and properties (53–54).

The section on the uparasas begins with the enumeration of the items of this group: gandhaka, tālaka, (manaḥ)śilā, saurāṣṭrī, khaga (= kāsīsa), gairika, rājāvarta and kaṅkuṣṭha (56); it proceeds with the mythical origin of gandhaka (sulphur),[15] its three varieties (coloured like the beak of a parakeet, yellow, white), and its purification (57–73); tālaka, its two varieties (paṭala and piṇḍa), its purification and the extraction of its essence (74–77); the purification and liquefaction of (manaḥ)śilā (78); the purification of the two varieties of saurāṣṭrī (white and black) and the extraction of its essence (79–80); the purification of the three varieties (white, black, yellow) of kāsīsa (81–82);[16] the purification of the three varieties of gairika (rakta-, hema-, kevalagairika) and the extraction of a white and a red essence (83–84); the purification of the two varieties of

rājāvarta (gulikā and cūrṇa) and the extraction of its essence (85–87); the description of kaṅkuṣṭha (88); a general method of purifying the mahārasas and uparasas (89–90); the preparation of a vajrapiṇḍī, useful in extracting the essence from the mahārasas and uparasas (91–95).

The section on the metals (loha) begins with their enumeration: gold, silver, copper, iron (tīkṣṇa), tin and lead (96–98). The subjects dealt with are: the three varieties of gold (rasaja, kṣetraja, lohasaṃkaraja); the best type of gold is that of sixteen varṇa[17] (99–101); the purification of gold (102); the two varieties of silver (white and black) and their purification (103–104); the purification of the two varieties (red and black) of copper (105–106), the three varieties (rohaṇa, bājara, capalālaya) of tīkṣṇa or kānta (107–109), the two varieties (white and black) of tin, and lead (110–115); the liquefaction of the metals (118–136).

The last part of the chapter is concerned with the liquefaction of gems (137–146), the killing of metals (147–149), and the praise of some important substances (150–153).

Chapter eight (bījasādhana; 88 verses) gives a detailed account of the power (rāgasaṃkhyā) of diverse substances used in colouring mercury (2–15). The next subject is the preparation of bījas (16–23), divided into hema- and tārabīja,[18] kalpita-, rañjita- and pakvabīja; a kalpitabīja is of two varieties, śuddha and miśra. The other subjects are the preparation of mixtures of two (dvandvamelāpana) or more (melana) substances (24–40), such as hemābhra, tārābhra, tīkṣṇābhra, vaṅgābhra, nāgābhra; the colouring (rañjana) of mercury by means of kalpita- and rañjitabījas (41–49), and pakvabījas (50–57); the preparation of hema- and tārabīja (58–72), rañjanabīja (75–79), rañjanataila (80–82), and sāraṇātaila (83–85).

Chapter nine (viḍakathana; 19 verses) describes viḍas,[19] employed in the process called jāraṇa. Some of these viḍas bear names: vaḍavāmukha,[20] vahnimukha, jvālāmukha.

Chapter ten (rasaśodhana; 60 verses) deals with the names of mercury and its five varieties (12–9), and the names of eight saṃskāras and their effects: svedana, mardana, cāraṇa, jāraṇa, drāvaṇa, rañjana, sāraṇa and krāmaṇa (10–12). Five gatis of mercury are mentioned: mala-,[21] haṃsa-,[22] mala-, dhūma-[23] and jīvagati,[24] together with their characteristics (13–16).[25] Five avasthās of mercury are described: dhūma, ciṭiciṭi, maṇḍūkapluti, akampa and vikampa; these are removed by means of niyamana (17–22).[26] The saṃskāras which were enumerated in some preceding verses are elucidated (23–28). Three doṣas of mercury are mentioned: viṣa, vahni, mala (30–31). The system of weights (mānaparibhāṣā) is discussed (32–37). The remaining part of the chapter is devoted to a number of saṃskāras: svedana, mardana, pātana, nirodha, niyamana, and dīpana (38–59);[27] the seven kañcukas (42) or upādhijadoṣas are referred to (48).

Chapter eleven (bālajāraṇa; 221 verses) is mainly about cāraṇa and jāraṇa (1). Jāraṇā is of two types: bāla- and baddhajāraṇā (7). The order of a series of operations is elucidated (8–10). Jāraṇa of mica is said to be of two (pattrābhrajāraṇa and sattvajāraṇa) or three (samukha, nirmukha, vāsanāmukha) types (14–15).[28] These processes are described in detail (16–80ab). The state of mercury and its appearance are dependent on the amount of grāsa (abhraka, abhrakasattva, nāgābhra, etc.) added;

six states are distinguished: daṇḍadhārin, jalaukāsama (resembling a leech), kākaviṣṭhāsama (resembling the droppings of a crow), dadhimaṇḍasama (resembling whey), navanītasama (resembling butter) and golakākāra (resembling small balls) (50–54). The five avasthās are mentioned again (75).[29] The amount of mica digested (jīrṇa) by mercury determines whether the product is called bāla, yauvanastha or vṛddha (77–80ab).[30] If abhrakasattva is not available, a grāsa consisting of kānta or tīkṣṇa may be employed as a substitute (80cd–81).

Subjects discussed after this section on the jāraṇa of abhraka(sattva) are the jāraṇa of gold (86–89), the types of jāraṇā known as bhūcarī and khecarī (90–107), and two more types of jāraṇā (108–124).

The next subject is the jāraṇa of gems (125–137). The verses which follow are about mercurial preparations ensuring vedha (138–163), the jāraṇa of liquefied sulphur and lead (164–175), the colouring of mercury (176), garbhadruti (177–179ab), the preparation of tārāriṣṭa (179cd–180), the preparation of nāgābhra and its jāraṇa (180–191), krāmaṇa (197), seven forms of mercury: mūrchita,[31] mṛta,[32] jalūkābaddha, mūrtibaddha, paṭṭabaddha,[33] bhasman and khoṭa (198), and their description (199–208).

The order in which several operations are to be performed is mentioned: śodhana, grāsamāna, jāraṇa of sattvas, garbhadruti and bāhyadruti, jāraṇa of gold, puṭa of divine herbs, bandha of gems, rañjana, jāraṇā, anusāraṇā, krāmaṇa, and finally dāna (210–212).[34]

The chapter ends with verses on the actions of processed mercury.

Chapter twelve (rasabandhana; 382 verses), the longest, deals with the bandhana of mercury, an art unknown to Brahmā, Viṣṇu and Indra (2). Mercury is said to be immediately solidified (baddha) in the vicinity of a rākṣasa called Prayoga, who lives in the region between Gaṅgā and Yamunā (3).

The first part of the chapter consists of a long series of kalpas, describing preparations of particular plants (divyauṣadhi) and some other substances used in achieving alchemical aims, specifically rasabandha. The contents of this part of the chapter are closely related to the second part of the *Rasārṇavakalpa* of the *Rudrayāmala*.[35] A first series of kalpas deals with niśācara (4–26),[36] ajanāyikā (27–35),[37] narasāra (36–51), kaṅkālakhecarī (52–57), mantrasiṃhāsanī (58–64), surasiṃhanī (65–67),[38] and harīṇḍarī (68–70). Some verses on the excellence of the sixty-four divyauṣadhis or kulauṣadhis for alchemical operations and the inferiority of the tṛṇauṣadhis follow (71–83).

The second series of plants dealt with consists of divyauṣadhis: kṣmāpāla[39] and gajāri (84–96), caṭulaparṇī (97),[40] ekavīrā (98), raktakañcukī (99), vṛścikāpattrikā (100), vajrakanda (101–102), lāṅgalīkanda and karkoṭīkanda (103–104ab), śukacañcu or śukatuṇḍī and haṃsapādī or haṃsāṅghri (104cd–108), tṛṇajyotis (109–111), uccaṭī (112–116),[41] raktasnuhī (117–121), sthalapadminī (122–128), kumudinī (129–131),[42] the three varieties (white, red, deep blue) of citraka (132–140), nāginī (141–142),[43] jyotiṣmati (143–148), dagdhārohā (149–155), kaṭutumbī (156–165), kṣīrakanda (166–169), tintiṇī (170–171),[44] śākavṛkṣa (172–178), devadālī (179–182), and śvetaguñjā (183–188).[45]

The second part of chapter twelve is devoted to other substances employed in the solidification (bandha) of mercury: candrodaka (189–211), viṣodaka (212–231), saṃjīvanījala (231–258), uṣṇodaka (259–276), and śailodaka (277–327);[46] it ends with rasāyanas, in particular pills (guṭikā), prepared by means of śailodaka (328–357), and bhasmans (358–382).

Chapter thirteen (drutibandhana; 31 verses) is concerned with baddhajāraṇā, a process said to be superior to bālajāraṇā, described in chapter eleven.

Three types of bandha are distinguished: mūla- or vāsanābandha, rasabandhana, and pākabandha; mūlabandha, accomplished by means of the plants called mūlikā, is the best method (7–8). Three more types are: piṇḍikā-, druti- or kṣaṇa-, and saṃkocabandha (10–11). The larger part of the chapter gives an account of methods to achieve drutibandha.

Chapter fourteen (vajrabandha; 174 verses) describes many ways of achieving bandha by means of the bhasman of diamonds. Mercury, solidified (baddha) in this way, brings about krāmaṇa and vedha. The power of accomplishing vedha depends on the amount of mercury present in the mixture of substances. Ten varieties of the process called saṃkalī are described (7–18).

Pills (guṭikā), consisting of mercury solidified by means of vajrabhasman, are said to have wonderful properties, if used in the prescribed way, accompanied by the appropriate mantras (19–36, 37–48, 49–56).

Chapter fifteen (piṣṭistambhamahārasoparasavajrabandha; 207 verses) begins with the bandha of mercury by means of several varieties of vaikrānta (2–47), by means of kānta (48–50), capala (51–62), gandhaka and gandhapiṣṭikā[47] (63–106), and tālaka (107–111). It goes on with several ways of making a khoṭa (= baddhasūta, solidified mercury), also called the stambhana of a rasapiṣṭikā (112–163). Five types of bandha are said to produce a nigala or gola: khoṭa-, poṭa-, bhasma-, dhūli- and kalkabandha (164). Several methods of making a nigala are described (165–185), followed by procedures aiming at piṣṭikāstambhana (186–205).

Chapter sixteen (rasarañjana; 110 verses) describes the liquefaction (drāvaṇa, druti) of solidified (baddha) mercury, followed by its digestion (jāraṇā) of diamonds and other precious and semi-precious stones. These and other similar processes result in the colouring of metals, making them resemble gold, and in the acquisition of a divine body.

Some bandhas are also dealth with (95–98: cūrṇabandha; 99–107).

Chapter seventeen (lohavedha; 166 verses) is concerned with the saṃskāras called sāraṇa and krāmaṇa, which result in vedha, the transmutation of base metals into silver and gold. The three stages of sāraṇa, called sāraṇa, pratisāraṇa and anusāraṇa, are described (2–5). Some methods of reducing the hardness of metals (mṛdukaraṇa) are dealt with (106–114), as well as procedures enhancing the colour of the artificial gold (varṇotkarṣaṇa) and purifying it (118–151).

Chapter eighteen (dehavedha; 230 verses) describes the acquisition of a divine, immortal body, not subject to disease and decrepitude.[48]

The chapter begins with the purification of one's body (kṣetrīkaraṇa; 2–22), preliminary to the consumption of the mercurial preparation called āroṭa (12). The bhasman of mercury that has digested diamonds is the best preparation one can take; the bhasman of mercury that has digested gold, silver, copper, tīkṣṇa, capala, bājara, rohaṇa, or a

common type of tīkṣṇa make one attain the position of Rudra, Viṣṇu, Brahmā, Kubera, Sūrya, Soma, Agni, or Indra respectively (23–25). The urine and faeces of the successful alchemist (sādhaka) turn soil and stones into gold and his drops of sweat convert the eight metals into gold (28–29).[49] The miraculous effects of the mercurial preparations taken by the practitioner are elaborately described. These effects depend on the type of preparation and its dosage (40–46 and 56–60). The attempts will be abortive, however, if the appropriate mantras are neglected which protect the adept against the attacks of all sorts of malevolent beings (100–106). The eight articles of food called kakāra should be avoided: kūṣmāṇḍa, karkaṭī, kāliṅga, kāravellaka, kusumbhaka, karkoṭa, kadalī and kākamācikā (120). Many more articles of food are prohibited (124–126) and numerous rules of behaviour are to be observed (121–123, 127–136, 144–146).

The disorders brought about by improper use (rasājīrṇa) and their treatment are discussed (137–143).

Eight kinds of vedha of the body are distinguished: tvag-, māṃsa-, rakta-, asthi-, majja-, nāḍī-, dhātu- and kavacavedha; each kind also leads to a particular type of transmutation of a metal (147–153ab).

Several marvellous pills (guṭikā) are described: vajrāṅgasundarī (174–177), sarvasiddhidā (179–181), some pills without a name, and a gola (195–199).

Sources are not cited by name. Once (7.18) a *granthāntara* is mentioned, which may be the *Carakasaṃhitā* or one of the other āyurvedic classics.[50] The *Ḍāmaratantra* appears to be referred to in some MSS.[51]

The *Rasārṇava* is quoted or referred to in the *Amṛtasāgara*,[52] the pariśiṣṭas of the *Ānandakanda*, the commentary on the *Aṣṭamahāmātrā*, the *Āyurvedaprakāśa*, *Āyurvedasaukhya*,[53] *Āyurvedīya Khanijavijñāna*, *Basavarājīya*,[54] *Bṛhadrasarājasundara*, *Bṛhadyogataraṅgiṇī*,[55] *Capalanirṇaya* of the *Rasataraṅgiṇī*,[56] a *Cikitsāsārasaṃgraha*,[57] Gulrājśarmamiśra's commentary on the *Āyurvedaprakāśa*,[58] Hazārīlāl Sukul's commentary on the *Rasaratnasamuccaya*, Khare's commentary on the *Rasaratnasamuccaya*, Mādhava's *Āyurvedaprakāśa*, Nārāyaṇabhūpati's *Nārāyaṇavilāsa*,[59] the *Pākāvalī*,[60] *Pāradasaṃhitā*, *Rasadhātuprakāśa*, *Rasakakṣāpuṭa*, *Rasakāmadhenu*, *Rasāmṛta*,[61] *Rasaprakāśasudhākara*, *Rasarājalakṣmī*, *Rasaratnasamuccaya*, *Rasasaṃgrahasiddhānta*, *Rasasindhu*, the commentary on the *Rasataraṅgiṇī*,[62] the *Rasatattvavivecana*, *Rasayogasāgara*, *Rasendracintāmaṇi*,[63] *Rasendrakalpadruma*, *Rasendrapurāṇa*,[64] *Ranākarauṣadhayogagrantha*, *Sarvadarśanasaṃgraha*,[65] Somadevaśarman's commentary on the *Āyurvedaprakāśa*, Mallāri's *Vaidyakalpataru*, the *Vaidyakasāroddhāra*, *Vaidyaśāstrapravartakācāryanāmasamuccaya*, Revaṇa's *Vīrabhaṭṭīya*, the *Yogaratnākara*,[66] and the *Yogataraṅgiṇī*.[67]

Anonymous quotations from the *Rasārṇava* are found in the *Rasajalanidhi*, Mahādeva's commentary on the *Rasapaddhati*,[68] the *Rasaratnasamuccaya*, and Ṭoḍara's *Āyurvedasaukhya*.

A number of passages from the *Rasārṇava* are nearly identical to passages from the *Rasahṛdaya*.[69] The *Rasendramaṅgala* borrows widely from the *Rasārṇava*.[70] Borrowings from the *Rasārṇava* or from a common source are also found in the *Kākacaṇḍīśvarakalpatantra* and *Kākacaṇḍeśvarīmata*.[71]

The *Rasārṇava* was one of the sources of the *Āyurvedaprakāśa*, *Kūpīpakvarasanirmāṇavijñāna* and *Rasendrasambhava*.

The *Rasārṇava* is mentioned in Māṇikyadeva's *Rasaratnasamuccaya*.

Special features

Alchemy and the philosophy on which it is based are declared to be superior to the six philosophical systems (ṣaḍdarśana), because of the importance of the conservation of the human body (piṇḍadhāraṇa) for those aiming at emancipation while still alive (jīvanmukti; 1.7–17). Alchemy is regarded as belonging to karmayoga, a way of life governed by the cultivation of either rasa (mercury) or vāyu (breath);[72] both ways are described as parallel methods (1.18–22). The practitioner of the alchemical art should also be experienced in Haṭhayoga (1.26).[73]

Four varieties of the rasaliṅga, to be worshipped by the alchemist, are distinguished, in increasing order of merit: made from mercury mixed with mica, mixed with a viḍa, prepared by help of mantras, and mixed with rasaka (1.44).

Members of all four varnas may be accepted as pupils by a teacher (2.12). The female companions to be selected are, according to the characteristics they possess, called kākiṇī, kīkaṇī and kāñcikācinī (2.19).

The construction of the alchemist's workshop (maṇḍapa) with its rasaliṅga, a process accompanied by rituals, is described in detail (2.38–103).[74] Many divinities should be worshipped, amongst whom are Nandin, Mahākāla, Bhṛṅgirīṭa, Mahābala, Kumbhakarṇa, Sugrīva, Bhṛṅgīka, Dṛḍhāyudha, the ten alchemical Dūtīs:[75] Lepikā, Kṣepikā, Kṣārikā, Rañjikā, Lohaṭī, Bandhakārī, Bhūcarī, Mṛtyunāśinī,[76] Vibhūti, and Khecarī[77] (2.54 and 57–58), the four Śaktis: Mālinī, Hemaśakti, Balā, and Vajraśakti (2.62), and the six divinities consisting of Mahākāla, Mahābala, Aghora, Vajravīraka, Krodha, and Kaṅkāla (2.96–97).

Chapter three also refers to many divinities and other authorities, amongst whom are the four Siddhas, the eighteen excellent men,[78] Caṇḍaghaṇṭā, Bhairavī, and Caṇḍakāpālinī (3.10–15). A number of mantras are referred to by name: ḍāmaramantra, cintāmaṇimahāvidyā, caṇḍikāmahāmantra, aghorāstra, mahāpāśupatāstra (3.23–28), rasāṅkuśamantra, and kubjikāmantra (3.29–32).

The *Rasārṇava* distinguishes five mahāviṣas (major poisons): saktuka, kālakūṭa, sitamustā, śṛṅgī and kṛṣṇaviṣa (5.33), and five upaviṣas (minor poisons): snuhī, arka, unmattaka, karavīra and lāṅgalī (5.34ab).[79]

The *Rasārṇava* adds karṣaka to the usual four varieties of kāntaloha; it is regarded as the second best, next to drāvaka, the very best; both varieties are said to be suitable to alchemical and rasāyana purposes (6.40, 44, 48). Seven varieties of vaikrānta are described (6.127); the karbura type is not mentioned.

The list of mahārasas (7.2) is unusual in including darada (cinnabar) and sroto'ñjana, whereas abhraka (mica) and vaikrānta are omitted.[80] The *Rasārṇava* is the only rasaśāstra text listing sroto'ñjana as a mahārasa and excluding vaikrānta from the group.[81]

Two varieties of mākṣika[82] are mentioned, yellow and white in colour (7.5). Their usual names, suvarṇa- and raupyamākṣika, are absent from the *Rasārṇava*, where they are called tāpya and āvartaka (7.14). Three varieties of vimala are distinguished: yel-

low, white and red (7.5); their usual names, hema-, tāra- and kāṃsyavimala, are absent. The two varieties of śilājatu, patita and apatita (7.18), not known from other texts, may correspond to those usually called gomūtra- and karpūraśilājatu.[83] The four varieties of capala, white, yellow, red and black (7.23), are also mentioned in the *Rasapaddhati*, *Rasaratnākara* and *Rasendrapurāṇa*; the *Rasārṇava* and *Rasapaddhati* agree in regarding the white and yellow varieties as useful for alchemical purposes. The three varieties of rasaka, resembling mṛttikā, guḍa and pāṣāṇa (7.28–29), are peculiar to the *Rasārṇava*; its sattva, which may be zinc, is said to resemble tin (kuṭila; 7.35). The verses on sroto'ñjana (7.53–54) do not refer to the other varieties of añjana, described in many rasaśāstra texts.

The uparasa list of the *Rasārṇava* (7.56) is remarkable by its inclusion of rājāvarta, in common with the *Rasaratnākara* (III.1.57) and one of the lists found in the *Rasasāra* (6.8–9a). The three varieties of sulphur (gandhaka) (7.67) are also found in the *Rasapaddhati* (55), whereas many treatises add a fourth variety, black in colour. The two types of tālaka are called paṭala and piṇḍa (7.74); the paṭala type corresponds to the one called pattra, pattrin or dala in other texts. Varieties of manaḥśilā are not mentioned (7.78). A white and black variety of saurāṣṭrī are distinguished (7.79), a white, black and yellow one of kāsīsa (7.81). Three differently coloured varieties of gairika are mentioned (7.83), whereas most texts describe two varieties. The two types of rājāvarta (gulikā and cūrṇa: 7.85–87) may be peculiar to the *Rasārṇava*. Kaṅkuṣṭha is very briefly characterized as having the colour of coral and possessing a sattva (7.88).

The metals are called loha; the term dhātu is not used in the *Rasārṇava*. The series of metals is noteworthy by its mention of tīkṣṇa, which is usually one of the three types of iron, the other two being kānta and muṇḍa. Kānta is dealt with separately (6.40–64), while muṇḍa is not described in the *Rasārṇava*. Gold and silver are sāralohas, tīkṣṇa and copper sādhāraṇalohas, tin and lead pūtikalohas (7.96–98).

Gold is said to be of three varieties only and to be either red or yellow (7.99–100); its sixteen varṇas are not, as in other texts, restricted to divine types of gold (7.101). Silver is either white or black (7.103). Copper is red or black (7.105); the two varieties called nepāla and kṣuraka are not mentioned. Three varieties of tīkṣṇa are enumerated (rohaṇa, vājara, capalālaya; 7.107), whereas many texts have more varieties; the verse listing these varieties adds that kāntaloha is a synonym of tīkṣṇa, which disagrees with the description of kānta in chapter six. Tin is described as white or black (7.110), while most treatises distinguish a kṣura and miśra type.

Chapter eleven tells a story about Ruru,[84] one of the Dānavas,[85] who took a small amount of mercurial bhasman, which enabled him to root up the world and destroy Kailāsa; Śiva conquered this malevolent being after taking a particular, very potent, mercurial preparation (11.158–161).

Four differently coloured varieties of mercurial bhasman are mentioned: black, white, yellow and blue (11.205).[86]

Some of the divyauṣadhis mentioned in chapter twelve are described: caṭulaparṇī (12.97), tṛṇajyotis (12.109), uccaṭī (12.112–114), sthalapadminī (12.123–124), jyotiṣmatī (12.144), dagdhārohā (12.149–151), and kṣīrakanda (12.166–168).

Chapter twelve also deals with the mythical origin and properties of a wonderful

substance called kartarīrasa (12.202–210).

The saṃjīvanījala, which made the dead Daityas return to life, is said to be found near a village called Ambikā,[87] situated not far from the mountain Kṛṣṇagiri,[88] to the south of Kadalīnagara, a city located on the right bank of the Godāvarī (12.236–239).

Uṣṇodaka is found in the Uṣṇodakakuṇḍa, near a temple dedicated to Kampeśvara, lying on the river Praṇītā,[89] in the vicinity of the city called Kampa, located in its turn to the north of Mātāpura, a temple on the mountain Sahyādri, north of the Godāvarī (12.260–262).

Geographical names occuring in the verses on śailodaka are: Adhāreśa, Bhadrāṅga, Bhagavatī,[90] Brahmagiri,[91] Brahmeśvara, Dhāreśvara, Durjadeśa, Gokarṇa,[92] Gokulanagara,[93] Kiṣkindhyā,[94] Kṣīrakṣetra, Mālyavant,[95] Pampā,[96] Paryaṅka, Sahya,[97] Siṃhadvīpa, Śrīśaila,[98] Śrīvana, Tristhala, Varṣāpurī, Vindhya, and Vyāghrapurī[99] (12.282–287).

Chapter fourteen refers to a number of twenty-four Siddhas (14.40).

Chapter seventeen, devoted to vedha, does not regard this process as a separate saṃskāra.[100]

Several groups of drugs are listed in chapter five.

The niyāmaka drugs are: ākhuparṇī,[101] āmalakī, anantā, balā, bhṛṅgarāja, brahmadaṇḍī,[102] cakramarda, dviparṇī, ekaparṇikā,[103] ghanadhvani,[104] girikarṇikā, gojihvā, jalabindujā,[105] jvālinī,[106] kākajaṅghā, kākamācī, kañcukī, kapotikā, kokilākṣa, kṛṣṇā, kṛṣṇaparṇī,[107] kṣīriṇī, kukkuṭī,[108] kuruṅgiṇī,[109] mahābalā, maṇḍūkaparṇī, matsyākṣī, meṣaśṛṅgī, nāgabalā, nīlī, padmacāriṇī, pāṭhā, phaṇijihvā,[110] punarnavā, rāsnā, sahacarā, sahādevī, śarapuṅkhā, sarpākṣī, śatāvarī, śikhaṇḍinī,[111] śvetā,[112] tittiḍī, triparṇī,[113] tulasī, vahnikarkoṭī,[114] and viṣṇukrāntā (5.2–7).

The rasanirjīvakārikā drugs[115] are: agnidhamanī, ajamārī, aṅganāmikā, bālamocakā,[116] brahmacāriṇī,[117] bṛhatī, cakrī,[118] caṇḍālī,[119] ekavīrā,[120] gajakarṇikā,[121] gajārī,[122] haṃsāṅghrī, hanūmatī,[123] hemapuṣpī, himāvatī, kākamācī, kākamuṇḍī,[124] kālikā, kāñcanī,[125] kañcukī, keśinī,[126] khaḍgārī,[127] koṭarākṣī,[128] kuhukaṃvikā,[129] kumārī, lakṣmī,[130] lāṅgalī, māninīkandā,[131] meṣaśṛṅgikā, modā,[132] narajīvā,[133] narakasā,[134] nīlacitraka, rājikā, rākṣasī, raktacitraka, raktasnuhī, raktaśṛṅgī,[135] raktikā, rudantī, śākhoṭaka, śamī, śaṅkhapuṣpī, somalatā, śṛgālajihvā, sūryabhaktā, tāmbūlī, toyavallī,[136] uccaṭā, vajrī, vanarājī,[137] vyāghranakhī, and vyāghrī (5.8–13).[138]

The drugs that are helpful in the killing (māraṇa) of mercury are: bākucī, bilva, brahmabīja, dantinī, devadālī, gojihvā, gosandhī, indravāruṇī, kākajaṅghā, kañcukī, kāravallikā, karkoṭī, kārpāsa, kaṭutumbī, kṛṣṇajīraka, kṛṣṇakanaka,[139] mahākālī,[140] paṭolī, pipīluka, śambarī,[141] sitāṅkola, śvetaguñjā, śvetārka, and yavaciñcā (5.14–16).

Drugs used in the bandha of mercury are: arkapattrī, brahmadaṇḍī, cakrāṅkī, cakrikā, dagdharuhā, devadālī, hanūmatī, hemavallarī, indurī,[142] īśvarī, kākamācī, kṛṣṇamārjārī, kṣīrakukkuṭī, modinī,[143] nāgajihvā,[144] nāgakarṇī,[145] nīlajyotis, raktacitraka, raktasnuhī, śākhoṭakī, śaṅkhapuṣpī, somalatā, rudantī, sthalapadminī, tāmraparṇī,[146] tridaṇḍī, triśūlī, tṛṇajyotis, utkaṭā, vaṃśapattrī, vartulaparṇikā, vīrā, and vṛddhadāruka (5.17–21).

The drāvikā group[147] consists of devadālī, kadalī, kākamācī, kośātakī, śigruka, sūryāvarta, udakakaṇā,[148] vajrakanda, and vandhyā (5.22–23).

The krāmikā drugs[149] consist of arjunī, arkapattrikā, brahmī, cavī, ghanarava, haṃsapādī, kākamācī, kāravella, kāsamarda, kṛtāñjali, kṣīranālī, kuravakā, lakṣmaṇā, nāginī, śatāvarī, saṭirī, tāmbūlī, varāhakarṇī,[150] and vyāghrī (5.24–25).[151]

Brahmadaṇḍa,[152] sudaṇḍa[153] and lohadaṇḍa are useful for rasāyana purposes, because they are of the nature of Brahmā, Viṣṇu and Maheśvara (5.26). Bhṛṅgarāj, bhūpāṭalī, hemaparṇī, kaumārī,[154] nāgavallī, paṭolī, siṃhavallī, and śūkarī are the eight plants called mūlikā (5.27). The pañcaratna group, employed in the purification of mercury and in jāraṇa, consists of indirā, kaṅkālakhecarī, kṣamāpālī, mantrasiddhāsanā, and niśācarī (5.28).

Noteworthy names of plants, apart from those already mentioned, are: ahimāra (8. 77; 14.141),[155] amṛtākanda (6.98), āraktavallī (8.43; 15.2), bhiṇḍi (6.12), bhiṇḍī (6. 102),[156] bhūmyāmalaka (15.9), bījā (6.98),[157] brahmasomā (17.10),[158] bṛhatītraya (6. 35), cakrāṅkā (15.138; 16.17), challī (14.98), dvipadī (12.8, 37, 39; 14.38; 15.2, 72, 75, 187, 190; 16.96; 17.9),[159] dvyārdraka (7.21), gadā (11.24),[160] gaurīphala (7.113), gokarṇa (10.50),[161] gopālakī (7.109),[162] gorambhā (15.136), gṛdhrakarṇī (17.10), hilamucā (11.25), kākāṇḍī (6.39; 15.148),[163] kākeṣṭha (18.6), kākinī (6.24),[164] kāma (8. 83),[165] kandapadminī (14.168), kaṇḍūlasūraṇa (6.105),[166] kāntā (10.39),[167] kapālī (6. 26),[168] karaka (15.182),[169] karṇākhya (8.36),[170] kauberī (11.25), kīlāla (6.81),[171] kīṭamārī (12.42),[172] kokilā (15.148, 175, 182),[173] kuliśa (6.30),[174] kumudī (15.2),[175] māghakhecarī (12.53), mahāsomā (15.138), mārjārapādī (6.27),[176] mārjārī (16.10),[177] nāgakanyā (8.77),[178] nāgaśuṇḍī (11.44),[179] nārī (7.139; 13.17),[180] peṭārī (6.91, 99), rāgiṇī (11.86),[181] rasāṅkuśa (10.52), rasaphala (12.364), śakraiatā (16.89),[182] śalyā (15.45), śaṃkara (15.198), śivā (9.16; 16.89),[183] sthalakumbhī (6.118), śūkakanda (12.106), sumukha (6.13), suvarṇā (17.74),[184] tamā (15.153),[185] tiktaśāka (11.26),[186] timira (6. 98; 14.150),[187] varṇikādvaya (11.178),[188] vasuhaṭṭa (11.86; 15.9),[189] vegā (6.30),[190] viṣatṛṇa (12.229, 230), viśvāmitrakapāla (14.118),[191] and vyāghrakanda (6.130).

Some interesting yantras referred to are: bhramarāyantra (15.46), cakrayantra (15. 107), dīpayantra (14.129), krauñcapāda (12.107), medinīyantra (12.60), and padmayantra (11.194).

Beef (gomāṃsa) is an item required in a number of alchemical operations (6.32; 7.4 and 78).

Kapāli(n) and Kāpālika are rather often employed terms,[192] which may refer to the alchemist Kāpālika or the sect of the Kāpālikas.

The author

The author of the *Rasārṇava* is unknown. The work is sometimes ascribed to Śambhu[193] or Bhairavānandayogin.[194] It is possible that later texts refer to the author as Manthānabhairava.[195]

Date

The period of composition of the *Rasārṇava* cannot be established with any certainty, but the work is earlier than the middle of the fourteenth century, because it is quoted in the *Sarvadarśanasaṃgraha*. Most scholars place it, in imitation of P.C. Rāy,[196] in the twelfth century.[197] P.C. Rāy[198] claimed that the *Rasārṇava* borrowed copiously from Nāgārjuna's *Rasaratnākara*, i.e., the *Rasendramaṅgala*; G.P. Srivastava[199] asserted that it borrowed from the *Rasahṛdaya*. D.G. White[200] noticed that the early eleventh-century *Vimalaprabhā* commentary on the *Kālacakratantra* reveals a number of striking similarities in both language and subject matter with the material found in the *Rasārṇava*.

P. Ray[201] regards the *Devīśāstra*, mentioned in a number of treatises, as identical with the *Rasārṇava*.

The *Rasārṇavakalpa*

The *Rasārṇavakalpa*[202] is a treatise on alchemy that forms part of the *Rudrayāmalatantra*.[203] The work, in the form of a dialogue between Bhairava and Pārvatī, is written in verse, with the exception of two passages in prose (368–370; 651), and consists of 814 stanzas. A division into chapters is absent, but the text can broadly be divided into three parts: (1) 1–77: rasāyana preparations; (2) 78–207: alchemical operations; (3) 213–814: kalpas.[204]

Contents[205]

Part one describes several rasāyana preparations, all of them containing mercury or one of its compounds.

Part two describes several methods of making artificial gold;[206] a number of saṃskāras of mercury are referred to; the medicinal qualities of some preparations are mentioned; some substances are used for rasāyana purposes, to obtain dehasiddhi, or to revive the dead. Part two is also concerned with the alchemical uses of a number of plants; the groups of verses on these plants resemble kalpas; some of the plants are described: vartulaparṇī (152), jyotiṣmatī (173), and dagdhārohā (177–180); the sixty-four divyauṣadhis are referred to (135); kulauṣadhis and tṛṇauṣadhis are distinguished; the tṛṇauṣadhis are, in contrast with the kulauṣadhis, useless for alchemical purposes (133cd–137).

Part three consists of thirty-one kalpas, describing the origin of particular substances, their names, characteristics, properties and uses.[207] Twenty-two kalpas are concerned with plants, three with inorganic substances (various substances, gandhaka, tālaka), and six with types of soil and water.[208]

The kalpas are devoted to: aparājitā (213–229),[209] brahmadaṇḍī (230–241),[210] aśvagandhā (242–250),[211] muṣalī (251–256),[212] a number of inorganic substances (257–260: śṛṅkhalākalpa), jyotiṣmatī (261–301),[213] śvetārka (302–322),[214] gandhaka (323–376),[215] tālaka (377–406), raktavajrī (407–414), uccaṭā (415–437),[216] kuṣmāṇḍī (438–448), īśvarī (449–491),[217] tṛṇajyotis (492–500),[218] vīrā (501–516), devadālī (517–545),[219] pītadevadālī (546–564), kaṭutumbī (565–578),[220] kṣīrakañcukī (579–590),[221] rudravantī (591–603),[222] somarājī (604–611),[223] dakṣiṇadeśatāmravarṇa-(mṛttikā) (612–617), mayūragira(rasa) (618–650), nāgamaṇḍala(rasa, -kardama, etc.) (651–701),[224] candrodaka (702–729),[225] viṣodaka (730–745),[226] śailodaka (746–756),[227] kolakavṛkṣa (757–764), śālmalī (765–782),[228] śrīvṛkṣa (738–789), and eraṇḍa (790–814).[229]

Sources are not referred to. An ancient authority mentioned is Nārada (215).[230]

Part two of the *Rasārṇavakalpa* is closely related to *Rasārṇava* 12.8–182. The candrodaka-, viṣodaka- and śailodakakalpas also find counterparts in the *Rasārṇava*.[231] Noteworthy agreements exist between verses of part three of the *Rasārṇavakalpa* and verses of the *Kākacaṇḍīśvarakalpatantra*.[232]

Special features

Interesting plant names found in parts one and two are:[233] ajanāyikā (97),[234] anāmikā (66), arkanamitā (66),[235] arkavallī (61),[236] bahulā (64),[237] bhṛṅga (57),[238] dagdhārohā (177–181),[239] dvipadī (105; 106),[240] ekavīrā (153), gajadhvajī (66),[241] gajāri (148),[242] haṃsagamanī (66),[243] haṃsāṅghri (162),[244] harīndarī (130),[245] jaṭādhara (67),[246] kaṅkālakhecarī (115–116; 118), khecarī (122; 123),[247] koravallī (148),[248] kṛṣṇanāla (181),[249] kṣīrakanda (193),[250] kṣmāpāla (143), lajjakā (66),[251] mantrasiṃhāsanā (122; 123), niśācara (78; 80; 81; 84; 87; 90; 92; 96; 145),[252] payovallī (59),[253] puṣpī (6; 123),[254] raktakañcukī (154),[255] śambhu (61),[256] siṃhatuṇḍa (109),[257] śukacañcu (162),[258] suśīrakī (61),[259] tṛṇajyotis (163cd–165),[260] vajrakanda (156),[261] vartulaparṇī (152), vellakāra (61),[262] and vṛścikā (155).[263]

The *Rasārṇavakalpa* contains a large number of geographical names. Regions mentioned are: Cyavana (613), Joṅgala (502), Kaṅkaṇaka (438), Nāgamaṇḍala (615; 654; 657; 667; 669), Pāṇḍava (613), and Pāriyātra (651). Cities and other places referred to are: Deüliyā (752), Karahāṭa (618),[264] Ṭillāpada (612), and Ujjayinī (180). Names of rivers are: Bhagavatī (750),[265] Candrabhāgā (653; 668; 680),[266] Gaṅgā (180; 653; 668), Kulā (670), Narmadā (653; 693; 695), Pāra (651), Pārā (669),[267] Sarasvatī (653; 669),[268] and Śoṇa (672).[269] Names of mountains are: Amarakaṇṭaka (703),[270] Bhadra (= Meru; 751), Brahmagiri (751),[271] Candrakānta (429), Gandhaparvata (= Gandhamādana; 703),[272] Gokarṇa (750),[273] Hariścandra (703), Hemaprastha (429), Himālaya (428), Himavant (704), Jālandhara (428),[274] Kapila (665; 666), Kardama (747), Karvura (654; 667; 668; 669; 680), Kumeru (427), Mahendra (503; 703),[275] Malaya (502; 703), Mayūragira (618),[276] Nṛsiṃha (752), Paryaṅka (749), Piṅgala (654; 668; 677; 699–701), Ṛkṣa (751),[277] Sahya (752),[278] Śrīśaila (703; 749),[279] Sunanda (654; 667), Trikūṭa (704),[280] Vindhya (428; 502; 751), and Vyāghra (667; 668).

These geographical names are regarded as indications that the *Rasārṇavakalpa* has been composed in the Vindhya region. This hypothesis is thought to be supported by the consideration that the *Rudrayāmalatantra* came into being in the Viṣṇukrāntā area, which extended from the Vindhyas to Chaṭṭala (i.e., Chittagong).[281]

Date

Parts of the *Rasārṇavakalpa* are closely related to parts of chapter twelve of the *Rasārṇava*. Mira Roy and B.V. Subbarayappa expressed as their opinion that the *Rasārṇava* is posterior to the *Rasārṇavakalpa*, without claiming that the former borrowed from the latter, since indebtedness to a common source cannot be brushed aside easily. B.V. Subbarayappa is convinced that the *Rasārṇavakalpa*, on account of its emphasis on Tantric practices and its esoteric approach to alchemical procedures, dates from the beginning of the flourishing period of Indian alchemy, i.e., in his estimate, the period A.D. 900–1100. He assigns the *Rasārṇava* to the twelfth, the *Rasārṇavakalpa* to the eleventh century. The terminus post quem is in his view the date of the *Rasaratnākara* (i.e., in his opinion, the eighth or ninth century), because one of the verses of this work forms part of the *Rasārṇavakalpa*;[282] this argument can be disregarded, because the pertinent verse is not from the *Rasaratnākara*, but from the *Rasendramaṅgala*.

It seems hazardous to assume that an unsystematic text of a compilatory character like the *Rasārṇavakalpa* may be dated rather accurately. The chronological position of the *Rudrayāmala*, to which it is said to belong, and the different versions of that text should therefore carefully be taken into consideration.

Chapter 11
Rasasaṃketakalikā to *Rasendracūḍāmaṇi*

The *Rasasaṃketakalikā*

The *Rasasaṃketakalikā* by Kāyastha Cāmuṇḍa[1] is a treatise on alchemy and iatrochemistry in 399 verses,[2] arranged in four chapters (ullāsa).

Contents[3]

The maṅgala is addressed to Śiva as the lord of mercury (Raseśa). Chapter one (49 verses) describes the mythical origin of mercury (1.2–4ab),[4] the varieties of mercury (1.4cd–5ab), the doṣas and kañcukas (1.5cd–6), some saṃskāras (mardana, svedana, mūrchana, pātana, gandhakajāraṇa, bandha, māraṇa; 1.7–40), the properties of killed mercury (mṛtarasa) (1.41–46), the side effects of the use of mṛtarasa and their treatment (1.47–48), and the results of paying homage to the lord of mercury (1.49). Chapter two (65 verses) is concerned with the description of the six natural metals (loha), their properties, varieties, purification and killing (2.1–49), lohakiṭṭa (2.50–51), kharpara (= rasaka; 2.52–53), the purification and killing of some alloys (kāṃsya and pittala; 2. 54ab), the treatment of disorders caused by the metals (2.54cd), and the nirutthakaraṇa[5] of the metals (2.55–57); the chapter ends with the description of abhraka, its varieties, killing, the extraction of its essence (sattvapātana), the killing of the essence,[6] and the uses of the products obtained (2.58–65). Chapter three (16 verses) deals with viṣas[7] and upaviṣas (3.1–9), opium (3.10–12), and bhṛṅgī (3.13–16). Chapter four (129 verses) is a collection of rasayogas to be employed against various diseases and for rasāyana and vājīkaraṇa purposes. Chapter five (40 verses) contains formulae for pills (guṭikā; 5.1–30) and some other preparations (5.31–40).[8]

Sources are not referred to. Cāmuṇḍa mentions the saṃpradāya of his guru (4.85 and 91).

The *Rasasaṃketalikā* is quoted in the paribhāṣā pariśiṣṭa of the *Ānandakanda*, the *Āyurvedābdhisāra*, Caturbhujamiśra's commentary on the *Rasahṛdaya*, Khare's commentary on the *Rasaratnasamuccaya*, Gulrājśarmamiśra's commentary on the *Āyurvedaprakāśa*, the *Rasakāmadhenu*, the *Rasamitra*, the *Rasāmṛta* of Yādavjī Trikamjī, the *Rasāyanasaṃgraha*, and Somadevaśarman's commentary on the *Āyurvedaprakāśa*. It is one of the sources of the *Āyurvedaprakāśa*, *Bheṣajasaṃhitā*, *Pāradasaṃhitā*, and *Rasayogasāgara*.

A commentary on the *Rasasaṃketakalikā* by Somadevaśarman is recorded.[9]

Special features

Four varieties of mercury are distinguished, named after the four varṇas (brāhmaṇa, kṣatriya, vaiśya, śūdra; 1.4cd). Five naisargikadoṣas and seven kañcukas are mentioned; their names are not enumerated (1.5cd–6). Eighteen saṃskāras are referred to, but only a few, which are easily carried out, are described (1.7). Four types of rasabandha are mentioned: pāṭa[10] or parpaṭikābandha, khoṭa or piṣṭībandha, jalaukā or pakvabandha, and bhasmākhya (1.16–17). The preparation of two varieties of rasabhasman, ūrdhvaga- and talabhasman (1.18–28ab),[11] is described, as well as the preparation of five varieties which differ in colour: rakta, pīta, kṛṣṇa, nīla, and pāṇḍurāruṇa (1.28cd–33).[12] The six natural metals are gold, silver, copper (arka), tin, lead and iron (2.1); bronze (ghoṣa or kāṃsya) and brass (āvartaka or pittala) are alloys (2.1). Five varieties of gold are distinguished (prākṛta, sahaja, agnija, khanija and rasavādottha; 2.4–5), three varieties of silver (sahaja, khanija, kṛtrima; 2.10), two varieties of copper (nepāla and mleccha; 2.14) and of tin (khuraka amd miśraka; 2.25). Three types of iron are mentioned: muṇḍa, tīkṣṇa and kānta; muṇḍa has three varieties (mṛdu, kuṇṭha, kāṇḍāra), tīkṣṇa six (kharasāra, hotrāsa, tārāvarta, biḍa, kālaloha, gajākhya), and kānta four (romaka, bhrāmaka, cumbaka, drāvaka) (2.34–37). Zinc is not mentioned as one of the metals, but kharparasattva is described (2.52–53).[13]

Four varieties of mica (abhraka) are distinguished (pīta, sita, asita, and rakta, called respectively pināka, dardura, nāga, and vajra; 2.58–59). A nīlakaṇṭhamantra accompanies the killing of poisons (3.3–4ab). Upaviṣas mentioned are vajra, arka, heman, halinī, hayāri and viṣamuṣṭikā (3.9).[14] Four varieties of bhṛṅgī[15] are distinguished; their flowers are white, red, yellow and dark (kṛṣṇa) (3.13–15).

The rasas of chapter four are not arranged according to a particular scheme. One of the formulae is also found in Cāmuṇḍa's *Jvaratimirabhāskara*.[16] Divine or human authorities to whom rasayogas are attributed are: Bhairavānanda,[17] Brahmā,[18] Nāgārjuna,[19] and Rudra.[20] One formula[21] is said to have been of profit to Ghaṭaśravas,[22] Kumbhayoni,[23] Vṛkodara,[24] Śanaiścara,[25] Sahasradṛś,[26] Pañcamukha,[27] and Caturmukha.[28]

Some of the rasayogas may be original contributions of Cāmuṇḍa, because they are not found in earlier works.[29]

Noteworthy items of the materia medica are: ākalla(ka) (4.129; 5.12), jambhala (2. 61), jhaṣanayana (2.61), malapū (1.38),[30] phaṭakī (1.40),[31] phiṭkarī (4.83 and 127),[32] and sora (4.83).[33]

Śaṅkhadrāva was known to Cāmuṇḍa (4.38–89).

The *Rasasāra*

The *Rasasāra* by Govindācārya[34] is a treatise almost entirely devoted to alchemy.

Contents[35]

The work consists of 940 verses, arranged in twenty-six chapters (paṭala).

Chapter one (rasapūjāsvarūpastuti; 21 verses) is in praise of mercury and contains a number of mantras.[36] Chapter two (dravyasaṃgraha; 19 verses) enumerates the

items of an alchemist's equipment. Chapter three (anukramaṇikā; 17 verses) lists twice twenty-four saṃskāras. Chapter four (aṣṭacatvāriṃśatsaṃskāra; 13 verses) is about the doṣas of mercury, its purification, and the effects of a number of saṃskāras. Chapter five (rasaśodhanasaṃskāra; 69 verses) describes the details of śodhana (1–12), svedana (13–15), mardana (16), mūrchana (17–21), utthāpana (22–25ab), pātana (25cd–36ab), bodhana (36cd–50ab), niyamana (50cd–56ab), and nirodhana (56cd–69) of mercury. Chapter six (rasalohaśuddhisattvapātana; 39 verses) deals with the purification of the rasas and uparasas and the extraction (pātana) of their essences, the extraction of the essences of bhūnāga,[37] kānta (13–15ab), caura, hiṅgula, śilā, kāṅkṣī, kāsīsa and tālaka (15cd–33), as well as with the purification of sulphur (34–39). Chapter seven (sattvasthirīkaraṇa; 14 verses and a half) is about processes which make the sattvas, after their extraction, stable (sthira). Chapter eight (drutipātanānāguṇanirūpaṇa; 59 verses and a half) is concerned with the liquefaction (druti) of the sattvas of the rasas and uparasas, the druti of the lohas, ratnas, etc.; some groups of substances are also dealt with: tailavarga (32cd–34),[38] vasāvarga (35–36ab),[39] raktavarga (37–41), amlavarga (44cd–47ab), auṣadhīkṣāragaṇa (48–51), biḍas (52cd–58). Chapter nine (kṣāradrāvabiḍapākadivyauṣadha; 28 verses) gives an account of raṅgākṛṣṭi or raṅgadruti, an art the author learnt from Tibetan Buddhists, followed by the preparation of a biḍa and the enumeration of herbs which are useful in the jāraṇa, māraṇa and bandhana of mercury. Chapter ten (ratnalakṣaṇadrāvaṇabhedanamelāpāka; 50 verses and a half) describes the ratnas and their varieties, their drāvaṇa (= druti), māraṇa (or bhedana), and melana (mixing). Chapter eleven (bījapāka; 57 verses) describes a number of bījas, which are helpful in the process called jāraṇa, and the pāka of the bījas. Chapter twelve (mahārasajāraṇādividhi; 95 verses) is concerned with cāraṇa, garbhadruti, jāraṇa of a grāsa added to mercury, ratnadrutimela, rañjana, bandhana (mūṣābandha), sāraṇa, pratisāraṇa, krāmaṇa, and vedha (also called praveśa). Chapter thirteen (vedhādikrama; 27 verses) describes several types of vedha; udghāṭana is also dealt with (22–26ab). Chapter fourteen (dvandvamārapiṣṭistambhananigaḍabandhanasaṃkalikāyogadrutikarmādinirūpaṇa; 35 verses) gives an account of dvandvamela (mixing two substances) and dvandvamāra (killing of this mixture) (2–8), piṣṭīstambhana (9–17ab), nigaḍabandhana (17cd–20), saṃkalī (21–33) and druti (34–35). Chapter fifteen (rasoparasalohakarman; 34 verses and a half) describes operations leading to transmutation (vedha), in which several sattvas of rasas and uparasas, such as those of vaikrānta of various colours and of vimala, are important. Chapter sixteen (ratnaprayoga; 22 verses) is about the uses of ratnas, their kalkas (pastes), etc., as bījas in the making of gold and silver. Chapter seventeen (anekakalkabheda; 45 verses) describes the kalkabandhana of mercury; the poisonous substances are enumerated; methods to achieve auri- and argentifaction by means of poisonous substances are dealt with. Chapter eighteen (maṇimūṣākarmadala; 24 verses) is about the uses of gems (maṇi) and the transmutation of metals. Chapter nineteen (guṭikākathana; 12 verses and a half) is devoted to the preparation of two varieties of guṭikā, called kāmadhenu, which convert base metals into gold and make one obtain a divine and invulnerable body. Chapter twenty (anekaguṭikādīnāṃ sādhanopāyaḥ; 47 verses) describes several guṭikās which confer longevity, the ability

to fly (khecaratva), invisibility, invulnerability, etc.; even the dead may be resuscitated by means of these pills. Chapter twenty-one (krauñcayogapakṣakarmadivyauṣadhi; 68 verses and a half) is concerned with the uses of animal products (krauñcayoga; 1–8ab) in alchemical operations and with divine herbs (divyauṣadhi; 8cd–59) and their uses. Chapter twenty-two (yantramūṣā; 20 verses and a half) describes yantras and other implements used in an alchemical workshop. Chapter twenty-three (mahārasasevana; 31 verses) is about rituals to be performed before using mercurial products that lead to dehasiddhi. Chapter twenty-four (rasāyanakathana; 16 verses) describes rasas which may be used for curing diseases and for rasāyana purposes. Chapter twenty-five (dhātumāraṇaprayoga; 28 verses) is concerned with the killing of metals and essences (sattva). Chapter twenty-six (mahārasasevā; 46 verses) is about the consumption of mercurial preparations and the wonderful effects obtained.

The *Rasasāra* is quoted in the prakīrṇaka pariśiṣṭa of the *Ānandakanda*, Gulrājśarmamiśra's commentary on the *Āyurvedaprakāśa*, Hazārīlāl Sukul's and Khare's commentaries on the *Rasaratnasamuccaya*, the *Pāradasaṃhitā*, *Rasajalanidhi*,[40] *Rasakāmadhenu*, *Rasamitra*, *Rasāyanasaṃgraha*, *Ratnākarauṣadhayogagrantha*, *Rasatattvavivecana*, Somadevaśarman's commentary on the *Āyurvedaprakāśa*, and Ṭoḍara's *Āyurvedasaukhya*.[41] The work is one of the sources of Hariprapanna's *Rasayogasāgara*, Hariśaraṇānanda's *Kūpīpakvarasanirmāṇavijñāna*, and Yādavjī Trikamjī's *Rasāmṛta*.

Govindabhikṣu is quoted in Gulrājśarmamiśra's commentary on the *Āyurvedaprakāśa* and Hazārīlāl Sukul's commentary on the *Rasaratnasamuccaya*.

Special features

The pūjā of mercury (rasarāja) should be performed by the alchemist in the company of a female associate (1.8–11). Chapter two lists eight dhātus: gold, silver, copper, iron, tin, lead, rītikā (brass), and kāṃsyaka (bronze) (2.4),[42] and nine gems: vajra, muktāphala, padmarāga, nīlaka, marakta,[43] puṣparāga, medas,[44] vaiḍūrya, and vidruma (2.5).[45] Some implements used in the laboratory are: piṇḍikā (2.8; 22.18),[46] kaṇḍanī (2.8),[47] retanī (2.9; 22.15),[48] hatoḍī (2.9),[49] kaṇī (2.9; 22.15),[50] chinnī (2.9),[51] arhiṇī (2.9; 22.16),[52] ghana (2.9),[53] saṃdaṃśanī or saṃdaṃśinī (2.9; 22.14),[54] and dīrghasaṃdaṃśaka (12.14).[55]

The unusual series of forty-eight saṃskāras of chapter three consists of: (1) rasoparasaśuddhi, (2) lohaśuddhi, 93) sattvadrāvaṇa, (4) sattvasthirīkaraṇa, (5) drutipāta, (6) raṅgākṛṣṭi, (7) ratnalakṣaṇa, (8) ratnadrāvaṇa, (9) dhātuśodhana, (10) ratnamelāpana, (11) bījapāka, (12) garbhadruti, (13) jāraṇa, (14) drutimelāpana, (15) rañjana, (16) bandhana, (17) sāraṇa, (18) māraṇa, (19) pratisāraṇa, (20) krāmaṇa, (21) vedha, (22) udghāṭana, (23) vikraya, (24) piṣṭistambhana, (25) bandha and nigaḍabandha, (26) saṃkalīkaraṇa, (27) rasoparasalohakarman, (28) ratnaśodhana, (29) vaṅgadoṣavināśa, (30) kālikāvijaya, (31) kalkabhedāḥ, (32) viṣakarman, (33) maṇimūṣāśrayakarman, (34) dalādikaraṇa, (35) kāmadhenuguṭikāḥ, (36) vayaḥstambha, (37) khecarī, (38) divyaguṭikāḥ, (39) krauñcayogāḥ and pakṣikarman, (40) auṣadhīkalpa, (41) yantrabhedāḥ, (42) mūṣābandhāḥ, (43) āyudhāni, (44) rasarājasvedana, (45) dhātumāraṇa, (46) dehasaṃkrāmaṇa, (47) bhojana, and (48) caryā.[56]

The series of eight saṃskāras described in chapter five, though more in line with what is usually found in rasaśāstra texts, presents some uncommon features: śodhana is the first saṃskāra; dīpana is absent; bodhana and nirodhana are two distinct saṃskāras. The verses on pātana give an account of ūrdhvapātana only. A number of doṣas and kañcukas of mercury are referred to in chapter four: bhūmidoṣa, darpa(doṣa), kālikā, kāpālī, maladoṣa, nāgadoṣa, ṣaṇḍadoṣa, sūkṣmadoṣa, unmatta, vaṅgadoṣa, viṣa, and aśmakañcuka. A number of saṃskāras have to be continued for a period of twenty-one days (5.13–15: svedana; 5.16: mardana; 5.22–25ab: utthāpana; 5.36cd–50ab: bodhana; 5.50cd–56ab: niyamana; 5.56cd–63: nirodhana).[57]

The uparasas consist of vaikrānta, sasyaka, tāpya (= mākṣika), kāca (v.l. kānta),[58] abhra, vimala, giri,[59] gairika, tutthaka, and rājāvarta (6.8–9a).[60] The extraction of the essence of bhūnāga is said to be carried out in the same way as the extraction of the essences of the uparasas (6.13ab), but a different procedure is employed in the extraction of the essence of kānta (6.13cd–14). The substance usually called rasaka is referred to as caura in the *Rasasāra*;[61] its essence is designated by the term kharparikā (6.17).[62] The sthirīkaraṇa or sattvabandha (7.10) of the essence of caura (= rasaka) is the model for this type of process, carried out by means of the cakrayantra or cakrarāja.

Chapter nine is concerned with the colouring of mercurial products (raṅgākṛṣṭi, raṅgadrāva), the technique of which is described in detail. It opens with the declaration that raṅgākṛṣṭi will be described, a subject not dealt with elsewhere in alchemical literature. The author mentions that Buddhists living in Tibet (Bhoṭadeśa) are acquainted with this technique (9.2). The same chapter enumerates three series of eight plants to be employed in the jāraṇa, bandhana and māraṇa of mercury (9.24cd–28). These groups consist of: agnidamanī, haṃsapādī, kumārī, lāṅgalī, mocā, siṃhī, vajrī, and vyāghrī (9.24cd–25); brahmadaṇḍī, mudgapattrī, rudantī, śaṅkhī, tridaṇḍī, triśūlī, vajrī, and vānarī (9.26–27ab);[63] kākāhvā, kākamācī, kākatuṇḍī, kālāñjanī, kālikā, kañcukī, karkoṭī, and kaṭutumbī (9.27cd–28).[64]

Chapter ten mentions five defects (doṣa), five qualities (guṇa), and four colours (chāyā) of diamonds (vajra) (10.2–4). The usual eight origins of pearls (muktāphala) are enumerated (10.5–6ab). The other gems are of four types: brāhmaṇa, kṣatriya, vaiśya and śūdra (10.8); the brāhmaṇa types are used in making silver, the kṣatriya types in making gold (10.19); a specific method of killing is required for each of the four types (10.35–41).

Chapter eleven refers to rā and rirī as substances used in the preparation of bījas.[65]

Chapter twelve describes sāraṇa and pratisāraṇa, but omits anusāraṇa. The verses on mūṣābandha refer to a series of products of this process, called daṇḍadhārin, pāyasākṛti, jalaukākāra, avipluṣa, chedin, dadhivat, and navanītābha (12.42–44ab).[66] The substances belonging to the krāmaṇagaṇa are enumerated: madhūcchiṣṭa (bees-wax), madhuka, madhūka, ṭaṅkaṇa, sitā, aśvakarṇamala, guñjā, keśāḥ (hairs), chucchundarīvasā,[67] strīrajas,[68] strīpayas (breastmilk), śukra, indragopa, bhūlatā, vasā, tāla, śilā, gandha, sārivā, kṣīriṇī, viṣa, hayāri, nābhi, karpūra, snuhī, arka, kṣīrakandaka, sarja, mṛtanāga, guḍa, guggulu, and tutthaka (12.85cd–88). The concluding verses of chapter twelve (12.89–94) are in praise of the miraculous effects of processed mercury, which transmutes the metals hidden in mountains, and makes the adept into a second Śaṃkara.

Chapter thirteen enumerates the types of vedha (13.1–3).[69] The items of the group called pañcamṛd are enumerated: khaṭikā, lavaṇa, gairī, kāṅkṣī, and iṣṭikacūrṇaka[70] (13.26cd–27ab). Chapter fourteen refers to an agnīṣomākhyayantra (14.4).

Chapter seventeen mentions five types of bandha (mṛtabandha,[71] jīvabandha, khoṭa, pāṭa, jalaukā; 17.5), five types of avasthā (dhūma, ciṭiciṭi, maṇḍūkapluti, kampa, atibhrama; 17.7),[72] and ten failures (vikriyā) of practice (17.11cd–13ab). The ten vikriyās, also called ṣaṇḍhajātis, are: kṣudhita, atinirāhāra, aśuddhalohajāraṇa, akrāmaṇa, atigrāsa,[73] biḍahīna,[74] biḍādhika,[75] śītatva, ativahnitva, and devatāvighna. Eighteen poisonous substances are listed: mayūra, kālakūṭa, saktuka, binduka, vatsanābha, sunābha, śaṅkhanābha, sunirmala, bhṛṅga, karkoṭaka, musta, puṣkara, śuklakandaka, raktaśṛṅga, haridra, cakra, hālāhala, and bhrāmara;[76] these poisons are divided into four brāhmaṇa, four kṣatriya, four vaiśya, and six śūdra types (17.21cd–25ab), employed in making silver (the brāhmaṇa types) and gold (the kṣatriya and vaiśya types), and in curing diseases (the śūdra types) (17.25cd–26ab). Chapter seventeen also describes four varieties of ahiphena, a substance produced by poisonous marine fishes (17.36–38); according to another view, ahiphena is a kind of froth (phena) produced by a snake.[77]

Chapter eighteen refers to three types of maṇi: sūryakānta, candrakānta and tārakānta.

Human flesh (naramāṃsa) is one of the substances required for the preparation of the guṭikā called kāmadhenu (19.3, 6, 8) and other pills (20.20). Particular animals or their organs are essential in the preparation of the pills described in chapter twenty.[78] Substances of animal origin are necessary for the krauñcayogas of chapter twenty-one.

Plants used in alchemical operations are classified as tṛṇa, gulma, latā, vallī, vṛkṣa and ativisarpiṇī (21.10). Sixty-four of these plants are described: ajagarī, alpapattrī, aśokanāmnī, āsurī, bhṛṅgā, bhūkadambā, bhūtakeśī, bilvātakī, brahmadaṇḍī, chattrī, devī, garuḍī, gomārī, gonasī, gorocanā,[79] gośṛṅgā, hemalatā, īśvarī, jalajā padminī, jātakī, jayā, kākapakṣā, kaṭutumbī, kṛṣṇacitraka or gopana, kīṭamārī, kṛṣṇavallī, kṣīralatā, kṣīriṇī, laśunī, mayūraśikhā, nāginī, palāśalatikā, payasvinī, pītakṣīrā, punnāgapattrikā, rajanī, raktacitraka, raktakṣīrā, raktaparṇī, rohiṇī, rudantī, śalyā, sāmarī, śambarā, śambarī, saptaparṇī, siṃhikā, somadaṇḍī, somalatā, somavallī, śrīnāmnī, tridaṇḍī, trijaṭā, triśūlī, trivallī or raktamālā, tumbī, vajravallī, vajrī, vārāhī, vijayā, vīrā, viśalyā, vyāghrapādalatā, and vyāghrī (21.11–59).[80]

Some of the rasas of chapter twenty-four are hemendra-, nāgendra-, tāmrendra-, and vaṅgendrarasa.

Chapter twenty-six describes rules pertaining to diet and behaviour to be observed by the sādhaka. An important prerequisite for the attainment of siddhi is the prevention of impregnation during sexual intercourse; it is therefore recommended to make one's sexual partner infertile (26.12–14ab).

Some yantras mentioned in the *Rasasāra* are cakrayantra (5.25ab and 35; 6.29; 9.16; 14.3)[81] or cakrarāja (12.23; 17.3 and 29; 22.3; 24.3 and 8), jalakūrma (12.25 and 37), jalayantra, and sthalakūrma (12.35 and 37).

Haṃsa is a term frequently employed to designate hiṅgula (6.32 and 33; 7.1, etc.).

Laddi is often used in the sense of laṇḍa, a firm animal excrement (7.5; 8.5, 6, 13; 10.30, etc.).

The author

The author mentions his name, Govinda or Govindācārya, several times in his treatise.[82] He was a grandson of the brāhmaṇa Sahadeva of the Moḍha jñāti, an expert in all the sciences and a mantrasiddha, and a son of Surāditya. He describes himself as a Śiva worshipper and a pupil of Dhīradeva, a specialist in alchemy. Dhīradeva was a Sārasvata brāhmaṇa, born in the Antarvedī country,[83] and a son of Abhayapāla.[84]

A Kirāteśa, referred to in the introductory verses (1.13),[85] is probably a deity,[86] since he is mentioned together with the guardians of the quarters of the sky (dikpāla) and Bhairava.

A *Saṃnipātamañjarī* is sometimes ascribed to the author of the *Rasasāra*.[87]

Govindācārya is quite distinct from Govindabhagavatpāda, the author of the *Rasahṛdaya*.

Date

The *Rasasāra* is usually assigned to the thirteenth,[88] fourteenth,[89] or fifteenth century.[90] The only evidence for its date consists of the quotations in Ṭoḍara's *Āyurvedasaukhya*.

The *Rasataraṅgiṇī*

The *Rasataraṅgiṇī* by Sadānandaśarman[91] is a systematic treatise on alchemy in the service of medicine.

Contents

The *Rasataraṅgiṇī* consists of about 3,650 verses, arranged in twenty-four chapters (taraṅga). The subjects of the chapters are: (1) the laboratory (rasaśālā; 38 verses); (2) technical terms (paribhāṣā; 74 verses); (3) the mūṣās and puṭas (50 verses); (4) the yantras (62 verses); (5) the doṣas and kañcukas of mercury (5.7–13); the purification of mercury (5.14–37); the extraction of mercury from cinnabar (5.38–42); the eight saṃskāras: svedana, mardana, mūrchana, utthāpana, pātana, bodhana, niyāmana, and dīpana (5.43–99); gandhakajāraṇa (5.100–108); (6) mūrchanā (6.2–8);[92] the preparation of mugdharasa (6.9–19),[93] rasapuṣpa (6.20–58), sikthataila (6.59–64),[94] rasakarpūra[95] and rasakarpūradrava (6.65–106), kajjalī (6.107–134), rasaparpaṭī (6.135–161), rasasindūra (6.162–237),[96] makaradhvaja (6.238–248), and the yellow bhasman of mercury (6.249–255),[97] together with their medicinal uses; (7) the killing of mercury; the uses of mercurial ashes (mṛtasūta); kṣetrīkaraṇa; rules concerning the use of mercurial products for rasāyana purposes (111 verses); (8) sulphur (gandhaka), its purification, the medicinal uses of purified sulphur (8.1–65); ten gandhakakalpas (8.66–93); the preparation of gandhakataila (8.94–112) and gandhakadrāva (sulphuric acid; 8.113–123); (9) cinnabar (hiṅgula), its purification and uses (62 verses);[98] (10) mica (abhraka), its varieties, purification and killing; the amṛtīkaraṇa of the bhasman[99] and its uses,[100] the extraction of the sattva of abhraka, its purification, killing and

uses (127 verses); (11) haritāla, its purification, killing[101] and uses, the extraction of its sattva and the uses of this sattva (11.1–103); manaḥśilā, its purification, uses and sattvapātana (11.104–129); śaṅkhavisa (= gaurīpāṣaṇaka, mallaka, somala), its purification and uses (11.130–176); the properties and uses of tuvarī (11.177–207),[102] khaṭikā (11.208–214), cūrṇa[103] and cūrṇodaka (11.215–229), dugdhapāsāṇa (11.230–236), and godanta (11.237–242);[104] (12) śaṅkha,[105] its purification and killing, the uses of śaṅkha and mṛtaśaṅkha (12.1–34); śaṅkhadrāvaka and its uses (12.35–56); the purification, killing and uses of kṣudraśaṅkha (12.57–63), śukti (12.64–78), jalaśukti (12.79–81), varāṭaka (12.82–102),[106] and śṛṅga (12.103–109);[107] the properties, uses and origin of samudraphena (12.110–126); (13) the preparation of three caustics (kṣāra): yavakṣāra (and nimbūkāmlīyayavakṣāra; 13.1–41), sarjikṣāra (and nimbūkāmlīyasarjika; 13.42–71) and ṭaṅkaṇa (and ṭaṅkaṇāmla; 13.72–122), their properties and uses; (14) other caustics: navasāra[108] (and its sattva; 14.1–26), soraka (and sorakadrāvaka; 14.27–58),[109] apāmārgakṣāra, arkakṣāra, tilakṣāra, snuhīkṣāra, palāśakṣāra, and ciñcākṣāra (14.65–116); the salts: saindhava, nārikelalavaṇa, arkalavaṇa, sāmudra, viḍa, sauvarcala, and romaka (14.117–164); the preparation of lavaṇadrāvaka and its uses (14.165–184); (15) metals in general (15.1–7) and gold[110] (suvarṇa; 15.8–116); (16) silver (rajata; 123 verses);[111] (17) copper (tāmra; 17.1–116),[112] the extraction of bhūnāgasattva and its māraṇa (17.117–122), the extraction of the essence of mayūrapiccha (the tail-feathers of a peacock; 17.123–124); (18) tin (vaṅga) and suvarṇavaṅga (105 verses);[113] (19) lead (sīsaka; 19.1–93)[114] and zinc (yaśada;[115] 19.94–170), their purification, killing and uses; (20) iron (lauha), its varieties, their purification, killing and uses (20.1–122);[116] maṇḍūra, its purification, killing[117] and uses (20.123–140); (21) the upadhātus, their purification, killing and uses, their sattvas and the killing of the sattvas; the upadhātus consist of: mākṣika (21.1–70),[118] tuttha (21.71–147),[119] (giri)sindūra (21.148–164), mṛddāraśṛṅga (21.165–180), rasaka or kharpara (21.181–214),[120] kāntapāṣāṇa (21.215–226), and kāsīsa (21.227–260);[121] (22) the alloys (pittala and kāṃsya), their purification, killing and uses (22.1–34); the purification and uses of the añjanas (22.35–59), śilājatu (22.60–109), and gairika (22.110–132);[122] (23) the mahāratnas, their purification, killing and uses: hīraka (diamond; 23.5–42), māṇikya (ruby; 23.43–62), mauktika (pearl; 23.63–86), puṣparāga (topaz; 23.87–95), nīla (sapphire; 23.96–103), marakata (emerald; 23.104–111), vaidūrya (cat's eye; 23.112–119), gomeda (zircon; 23.120–127), and vidruma (coral; 23.128–153);[123] the kṣudraratnas, their purification, killing and uses: vaikrānta (23.155–181), sūryakānta (23.182–186), candrakānta (23.187–190), rājāvarta (23.191–207), peroja (23.208–210), and sphaṭika (23.211–215); (24) the viṣas and upaviṣas, their purification[124] and uses; the eight poisons unsuitable for alchemical purposes and for rasāyana are: hālāhala, kālakūṭa, śṛṅgaka, pradīpana, saurāṣṭrika, brahmaputra, hāridra, and saktuka (24.7–9); vatsanābha is a useful poison (24.10–162); the upaviṣas are: viṣatinduka (24.165–233), ahiphena (24.234–305), jayapāla (24.306–341), dhattūra (24.342–390), bhaṅgā (24.391–436), guñjā (24.437–470), bhallātaka (24.471–486), karavīra (24.487–495), lāṅgalī (24.496–509), arkakṣīra (24.510–515), and snuhīkṣīra (24.516–530); snake venom is described, together with its purification and uses (24.531–574); the chapter ends with the purification of the

roots of raktacitraka, the seeds of vṛddhadāraka and nimbūka, the purification of hiṅgu and guggulu (24.575–580).

Sources are not indicated. Caraka is mentioned once (15.92).[125]

Sadānanda's teacher, Narendranātha, is referred to once (6.37–38).[126]

Sadānanda's *Rasataraṅgiṇī* is quoted in Ambikādattaśāstrin's commentary on the *Rasendrasārasaṃgraha*, the *Āyurvedīya Khanijavijñāna*, Gulrājśarmamiśra's commentary on the *Āyurvedaprakāśa* and the same author's *Viśikhānupraveśavijñāna*, Hazārīlāl Sukul's commentary on the *Rasaratnasamuccaya*, the *Rasadhātuprakāśa*, the *Rasatattvavivecana*, the bhasmapiṣṭiprakaraṇa of the *Rasoddhāratantra*, and Somadevaśarman's commentary on the *Āyurvedaprakāśa*; it is one of the sources of the *Bheṣajasaṃhitā*, *Rasayogasāgara*, *Rasendrasambhava*, and Yādavjī Trikamjī's *Rasāmṛta*. The *Rasataraṅgiṇī* is profusely quoted in Saṃtoṣ Kumār Śarmā's *Rasabhaiṣajyakalpanāvijñāna*.

Sadānanda is quoted in Hazārīlāl Sukul's commentary on the *Rasaratnasamuccaya*.

Special features

The verses of the *Rasataraṅgiṇī* are composed by the author himself.

Rasasiddhas enumerated are: Agastya,[127] Bhairava, Bhāskara, Brahmā, Gorakṣanātha,[128] Govinda, Kākacaṇḍīśvara, Kāpālika, Laṅkeśa, Māṇḍavya, Manthānabhairava, Matta, Nāgabodhi, Nāgārjuna, Nandin, Naravāhana, Narendra, Ratnakośa, Śambhu, Śaṃkara,[129] Svacchandabhairava, Viśārada, Viṣṇu,[130] Vyāḍi, and Yaśodhana (1.29–32).

Noteworthy yantras described are: bhasmayantra (4.16–17), mṛdaṅgayantra (4.–27), bāṣpasvedanayantra (4.35–38), and darvikāyantra (4.39). Many synonyms of the substances dealt with are enumerated. Two varieties of hiṅgula are mentioned, khanija and kṛtrima (9.4), and two varieties of gaurīpāṣāṇa, white and red (11.132). The nārikelalavaṇa (14.123–130) and arkalavaṇa (14.131–136) are peculiar to the *Rasataraṅgiṇī*. Varieties of muṇḍa-, tīkṣṇa- and kāntaloha are not distinguished (20). The upadhātus distinguished are: suvarṇamākṣika,[131] rajatamākṣika,[132] tutthaka, sindūra, mṛddāraśṛṅga, kharpara or rasaka, kāntapāṣāṇa, and kāsīsa (21). Two types of añjana are distinguished: mecaka or srotoja (= sroto'njana) and locaka or suvīraja (= sauvīra) (22.35); puṣpāñjana is added (22.49–50). Four varieties of śilājatu are described: sauvarṇa-, rājata-, tāmra- and lauhaśilājatu (22.64–68), and two varieties of gairika: pāṣāṇa- and svarṇagairika (22.111).[133] A number of rasayogas may be peculiar to the *Rasataraṅgiṇī*.[134] Types of pearls are not mentioned. Three varieties of vatsanābha are distinguished: kṛṣṇa, kapiśa and pāṇḍu (24.15). Opium is called ahiphena and khastilaniryāsa (24.237, 241); tinctura opii is described as ahiphenāsava (24.287–297).

Plants and other substances employed in the killing of mercury are: ākhukarṇī, bahuputrikā, balā, bhṛṅgarāja, brahmadaṇḍī, cakramarda, cāṇḍālinī, devadālī, dhūrta, dūrvā, girikarṇikā, guḍūcī, haṃsapādī, hastiśuṇḍikā, indravāruṇikā, jātī, jayantī, jvalana, kākajaṅghā, kākamācī, kākanāsā, kaṇā, kaṭutumbikā, koṣātakī, lajjālu, lākṣā, lāṅgalī, maṇḍūkaparṇī, matsyākṣī, mūrvā, musalī, nīpa, the two kinds of niśā, palāśa, prasāriṇī, punarnavā, rāmaṭha, rambhā, sahadevikā, samantadugdhā, śaṅkhapuṣpikā,

śarapuṅkhikā, sarpākṣī, sarṣapa, śaśilekhā, śephālī, śobhāñjana, somavallarī, śuṇṭhī, surasā, sūrya, sūryabhaktā, tilaparṇikā, vacā, vandhyakarkoṭakī, varṣābhū, vidārikā, viṣṇukrāntā, and yamaciñcikā (7.9–16).

Plants and other substances employed in the killing of mica are: agastya, agnimantha, ākhuparṇī, bhadramustā, bhṛṅgarāja, bilva, bṛhatī, citraka, cow's urine, dāḍima, devadāru, dhattūra, dūrvā, eraṇḍa, ghoṇṭā, ghṛtakumārikā, goat's blood, gokṣura, guḍa, guḍūcikā, hilamocikā, jalakumbhikā, kadambaka, kākamācī, kaṇṭakārī, kāsamarda, kharamañjarī, kokilākṣaka, the three kinds of milky juice (kṣīratraya), lodhra, madana, mālatī, maṇḍūkaparṇī, māriṣa, mātulānī, mīnākṣī, mustā, nāgavallī, pālaṅkyā, pāṭalī, phalatrika (= triphalā), piṇḍī, pṛśniparṇī, rambhā, śāliparṇī, śaṅkhapuṣpī, saptaparṇa, śrīparṇī, śuklasiddhārthaka, śvetapunarnavā, śyonāka, tagara, tālamūlī, tālīśa, taṇḍulīyaka, tiktakā, tilaparṇī, tulasī, vājigandhā, vastrarañjanī, the young shoots of the vaṭa, and vṛṣa (10.56–64).[135]

Plants used in the killing of iron are: bhṛṅga, candana, daśamūla, eraṇḍa, hastikarṇapalāśa, hrībera, karañja, nīlotpala, nirguṇḍī, parpaṭa, punarnavā, śatamūlī, śigru, siṃhikā, surasa, tālamūlikā, triphalā, viḍaṅgaka, viśva, and vṛddhadāraka (20.42–44).

Terms derived from modern chemistry are not uncommon; examples are: bindukṣepakayantra (20.160; dropper), caṇakāmla (15.25; oxalic acid), gandhakadrāva (8.113–123; sulphuric acid), gandhakāmlīyayaśada (19.149–166; zinc sulphate), lavaṇadrāva (14.165–184; hydrochloric acid), maṣīśoṣaṇapattra (24.317; blotting paper), nirjalā nirmalā surā (21.237; absolute alcohol), sārakapattra (16.83 and 84; filter paper), sorakadrāvaka (14.47–58) and sorakāmlaka (16.77; nitric acid), sorakāmlīyarajata (16.76–123; silver nitrate), suvarṇalavaṇa (15.34–44; gold chloride), ṭaṅkaṇāmla (13.100–122; boric acid), and varṇapattraka (18.35; litmus paper).

Terms borrowed from western medicine and late āyurveda are, for example: antraśoṣa (19.61), āntrikajvara (14.182; enteric fever), antrāvaraṇodbhūtajvara (24.43; peritonitis), asthivakratā (15.111; rachitis), ḍimbāśaya (16.59 and 61; ovary), granthikajvara (24.366 and 388; plague), granthiśotha (swelling of lymph nodes; 24.389), hṛdayāvaraṇaśotha (24.43; pericarditis), māṃsatāna (20.89; diphtheria), phiraṅga (15.91), phupphusacchadaśotha (24.42; pleurisy), pūyameha (24.95; gonorrhoea), saṃkrāmakakāsa (24.408 and 417; whooping cough), śoṇakāyajvara (22.109; scarlet fever), svapnameha (6.120 and 226; 24.400; nocturnal emissions), tāṇḍavagada (20.89), vraṇameha (19.159),[136] vṛkkaśotha (20.87; 24.403), and yoṣāpasmāraka (15.94; 20.88).

Works and authorities quoted or referred to in Haridattaśāstrin's Sanskrit commentary[137] on the *Rasataraṅgiṇī* are: Amara (3.38–39), Āyurvedaprakāśakāra (5.101), *Bhāvaprakāśa* (5.31), *Bhāvaprakāśīyanighaṇṭu* (24.307–309), Caraka (1.33–34; 24.369–378), dākṣiṇātyāḥ (10.3), *Dhanvantarīyanighaṇṭu* (18.84–95), Govindabhagavatpāda (5.106–108), *jyotiḥśāstra* (23.3–4), Kauṭilya (3.38–39), Medinī (24.236), Nāgārjuna (20.22–24), navyarāsāyanikāḥ (19.149–151), Narendranātha (6.32–38), *Nighaṇṭu* (13.82–95; 24.131–140), Nityanātha (5.106–108), *Rājanighaṇṭu* (13.45–47), *Rasacintāmaṇi* (5.106–108), *Rasamādhava*[138] (5.106–108; 6.1; 10.116; 20.5–6 and 19; 21.55–56), *Rasapaddhati* (5.106–108; 21.64–65), *Rasaratnākara* (5.106–108), *Rasaratnasamuccaya* (1.18–27), *Rasārṇava* (5.106–108; 7.90–92), *Rasavāgbhaṭa* (4.1; 5.46; 6.7–8), *Ra-*

sendracūḍāmaṇi (5.101), *Rasendrasārasaṃgraha* (4.40), *Rudrādhyāya* (5.20), Śārṅgadhara (22.54–57), *Śārṅgadharasaṃhitā* (17.37–39), *Śivāgama* (5.106–108), Suśruta (6. 113–128; 13.10–32; 22.88–109), Vāgbhaṭa (21.94–96; 22.69–78, 85–86, 88–109), *Vṛddhavāgbhaṭa* (22.85–86; 24.32–60), and *Yogaratnākara* (8.105–108; 21.66).

The author
Sadānanda Śarman Ghilḍiyāla was the son of Jīvānanda, an expert in jyotiḥśāstra, and Sarasvatī (1.2). His teacher, Narendranātha Mitra, assisted him in composing the *Rasataraṅgiṇī* (1.5–8).[139]

Sadānanda also wrote the *Pāradayogaśāstra* and a commentary on the *Rasakaumudī*.[140]

Date
The *Rasataraṅgiṇī* was completed in 1923/24.[141]

The *Rasāyanasāra*

The *Rasāyanasāra* by Śyāmasundarācārya[142] is a modern treatise dealing with iatrochemistry, in particular with the aspects pertaining to rasāyana.

Contents
The work consists of about 1,100 verses, arranged in five chapters (prakaraṇa). Chapter one is of an introductory character. Chapter two is concerned with the alchemical laboratory (rasāyanaśālā; 1–28) and types of bhrāṣṭrī and puṭa (29–66); the puṭas described are gajapuṭa, vārāhapuṭa and kukkuṭapuṭa.

Chapter three is about technical terms; its subjects are: nāndī (2–5), kajjalī (6), bhāvanā (7), vālukā (8–9), a definition of mudrā (10), mṛtpuṭa (11), saṃpuṭa (12), svāṅgaśīta (13), types of mudrā (14–23), yantras (24–54), kāñjī (55–60), kṣāra (61–73), amṛtapañcaka (74),[143] mitrapañcaka (75), biḍa (76), types of saṃdaṃśa (77–79), and agnyākarṣakadarvī (80).

Chapter four is concerned with: the eulogy of mercury (1–18); its purification (19–21); the preparation of mercury from cinnabar (22–45); sulphur, its varieties and purification (46–101); the stimulation of the appetite (bubhukṣā) of mercury, i.e., its ability to digest and assimilate other substances, and how to feed it (103–154); the preparation of several types of candrodaya (mixtures of mercury and sulphur): tālacandrodaya (183–198), śilācandrodaya (199–209), mallacandrodaya (210–221), viṣacandrodaya (222–229), sattvacandrodaya (230–239), antardhūmacandrodaya (240–249), and various other ones (250–252); the preparation of makaradhvaja (256–261), svarṇasindūra (262–267), sindūrarasa (268–283), pravāsasindūra (284–294), mūrchāntanasya (295–296), tālādicandrodaya (297–305), saṃgrahasindūrarasa (306–310), and rasakarpūra (311–321); the chapter ends with praising the mūrchā of mercury (322–324).

Chapter five gives an account of the purification and killing of the metals (dhātu) and upadhātus, together with allied topics. Its subjects are: the purification and killing of gold (5–22), rasāyana formulae (23–26), the medicinal properties of gold (27), anupānas to be taken along with suvarṇabhasman (28), disorders arising from impure suvarṇabhasman and their treatment; the purification and killing of silver (31–36), the properties of rajatabhasman, a rasāyana, defects of rajatabhasman and their removal (37–41); the purification and killing of the naipāla variety of copper (46–58), the nirutthīkaraṇa and amṛtīkaraṇa of the bhasman of copper (59–68); the extraction (niḥsāraṇa) of copper from tuttha and its purification, the preparation of tuttha (69–79), other methods of killing copper (80–106), the purification of tāmrabhasman, its medicinal properties and the treatment of disorders caused by impure tāmrabhasman (107–109); the khura variety of tin, its purification and the description of the piṭharayantra used to purify tin, lead and zinc (116–133), the killing of tin (134–167), the medicinal properties of the bhasman (168), the anupānas to be taken (169–176), rasāyanas (177–181), disorders caused by impurities and their treatment (182–184); the purification and killing of lead (185–200), a rasāyana (201–205), the medicinal properties of the bhasman of lead (206), disorders due to impurities and their treatment (207–208); the purification and killing of zinc (jasada; 209–215), anupānas (216–217), disorders caused by zinc and their treatment (218–220); the killing of kāṃsya and rājarīti (= pittala), followed by some rasāyana formulae (221–227); the purification and killing of the alloys called vṛta and vartaka (228–230); the purification and killing of iron (231–264), rasāyana formulae (265–271), the medicinal properties of lohabhasman (272–273), and the treatment of disorders caused by impure lohabhasman (274).

Three different opinions regarding the substances which should be regarded as upadhātus are referred to; the seven upadhātus consist of: (1) tāpya (= suvarṇamākṣika), vimala (= raupyamākṣika), tuttha, (ayo)mala (= maṇḍūra), kaṅkuṣṭha, sindūraka, and netrya (= gairika); (2) svarṇamākṣika, tāramākṣika, sindūra, kāṃsya, (śilā)jatu, tuttha, and rīti (= pittala); (3) nīlāñjana, mākṣika, tuttha, śilā(jatu), āla, rasaka, and abhra (275–277).

Chapter five continues with the following subjects: the purification and killing of suvarṇa-, raupya- and kāṃsyamākṣika (278–284), the medicinal properties of these substances, the disorders caused by impurities left, and the treatment of these disorders (285–290); the purification and killing of naturally occurring and chemically prepared (khanija and kṛtrima) tuttha (291–294); the purification, killing and properties of kaṅkuṣṭha (295–297); the purification and properties of sindūra (298–299); the description of maṇḍūra, its purification and killing, the preparation of haṃsamaṇḍūra and maṇḍūravaṭī (300–314); the description of nīlāñjana (black in colour), puṣpāñjana (white in colour), rasāñjana, sauvīrāñjana (similar to nīlāñjana), and sroto'ñjana (similar to puṣpāñjana) (315–318), followed by the preparation of hitāñjana (319–320); the description of vajrakāsīsa, its killing and its properties (321–323); the description of vajrābhraka, its purification, niścandrīkaraṇa,[144] killing, the plants used in this process, the properties of the bhasman, dhānyābhraka, rasāyanas, disorders brought about by impure abhraka and their treatment (324–376); the varieties of haritāla, its purification and killing (377–386); the killing of manaḥśilā and malla (387); the killing of godanta(haritāla) (308); the preparation of gandhaka-, malla-, manaḥśilā- and haritā-

lataila (389–405); the description of śaṅkha, śambūka, muktāśukti, jalaśukti, kapardī and vidruma, together with their medicinal properties (406–422); the preparation of kācabhasman and kācasuvarṇabhasman (425–429); the purification of ṭaṅkaṇa, kāṅkṣī, viṣa, gairika, jaipāla, and bhallātaka (430–441); the purification and killing of the gems (ratna) (442–444).

Chapter six (cikitsāprakaraṇa; 166 verses) consists of a collection of rasayogas against a series of diseases which are more or less arranged in agreement with the *Mādhavanidāna*. Most of these formulae, or even all of them, are not borrowed from earlier treatises, but were composed by the author.

Apart from Caraka (5.241–245), Suśruta (5.236–240) and Vāgbhaṭa (5.248), sources are not indicated. The author refers to the views of the vedāntinaḥ, śaktivādinaḥ (4.63) and Jainas (4.65, 139–140); he also mentions an opinion held by a yūnānavaidya (5.65–67).

The *Rasāyanasāra* is quoted in the *Āyurvedīya Khanijavijñāna*, Gulrājśarmamiśra's commentary on the *Āyurvedaprakāśa*, and Hazārīlāl Sukul's commentary on the *Rasaratnasamuccaya*; it is one of the sources of the *Bheṣajasaṃhitā*, Hariśaraṇānanda's *Kūpīpakvarasanirmāṇavijñāna*, the *Rasadhātuprakāśa*, the *Rasayogasāgara* and the *Rasendrasambhava*.

Śyāma and Śyāmasundarācārya are quoted in Hazārīlāl Sukul's commentary on the *Rasaratnasamuccaya*.

Special features

The verses of the *Rasāyanasāra* were composed by the author himself.[145] The contents are based on his own experience.[146] Opinions of earlier authorities are repeatedly referred to,[147] occasionally followed by the author's own view.[148] Vāgbhaṭa's rules about the application of an añjana[149] are rejected by Śyāmasundara, who prefers Caraka's exposition on this subject.[150]

The apparatus called bhrāṣṭrī (a furnace) is not described in other treatises; Śyāmasundara distinguishes five types: vālukāyantrabhrāṣṭrī, kvāthakarī bhrāṣṭrī, śodhanārthabhrāṣṭrī, tālādibhasmakarī bhrāṣṭrī, and sarvārthakarī bhrāṣṭrī (2.29–61).

Some technical terms explained in chapter three are: nāndī (3.2–5),[151] mṛtpuṭa (3.11),[152] and sampuṭa (3.12).[153] Types of mudrā[154] described are: vajra-, dṛḍha-, madhyama-, sādhāraṇa-, and sikatāsitāmudrā (3.14–21). Unusual names of yantras are: khalvacūrṇādiyantra, used for the preparation of haritālabhasman (3.27–30), vālukāgarbhapātālayantra, used for preparing oils (3.31–34), talapātayantra, also used for preparing oils (3.35–36), nalikāḍamarūyantra, used for the preparation of svarṇasindūra (3.43–44), ūṣmayantra, used for preparing oils (3.45–46), and svarasayantra, used for preparing a svarasa (3.47–49). Types of saṃdaṃśa (a pair of tongs) described are: yantrotthāpana-, ākarṣaka-, and sampuṭasaṃdaṃśa (3.77–79). A special type of ladle is the agnyākarṣakadarvī (3.80).

A khaṭvāṅgayantra is repeatedly mentioned (4.20 and 47; 5.42, 141, 255).[155] The piṭharayantra, described in chapter five (5.116–133), and used for the purification of tin, lead and zinc, is not known (under this name) from other treatises.

The alloy vṛta is a mixture of kāṃsya, iron and pittala; the alloy vartaka is composed of pittala, kāṃsya, tin, lead and iron (5.228). Kāṃsya and pittala are regarded as belonging to the upadhātus (5.222).

Some uncommon terms often employed in the *Rasāyanasāra* are cakrī (a bolus; 5. 152, 156, 196, 306; 6.95) and śīśī (a small bottle 4.290; 5.164).

Noteworthy items of Śyāmasundara's materia medica are barburā (4.258), barbūrikā (5.267), grāhamada (5.23),[156] and īṣagdola (6.107).[157]

The author[158]

Śyāmasundara, son of Nandakiśora, a Mārwāṛī Agravāla vaiśya, was born in Kāmavana in Bharatpur in 1871 or 1872. His teachers were Paṇḍit Arjunamiśra, Rāmamiśra Śāstrī and Umācaraṇa Kavirāja. In the year 1918 he moved to Vārāṇasī in order to teach rasāyanaśāstra at the Bananas Hindu University. He died in 1918 according to P.V. Sharma.[159]

Apart from the *Rasāyanasāra*, he wrote the *Anupānavidhi*.[160]

Date

The *Rasāyanasāra* was composed in the first quarter of the twentieth century.

The *Rasayogasāgara*

The *Rasayogasāgara* by Hariprapanna Śarman[161] is an extensive collection of rasayogas, compiled from a large number of sources. The work contains a total number of 3,878 formulae, alphabetically arranged: akārādi (447 formulae), kakārādi (559 formulae), cakārādi (323 formulae), takārādi (467 formulae), pakārādi (719 formulae), yakārādi (650 formulae), and śakārādi (713 formulae). This collection is supplemented by the Sanskrit versions of 115 rasas from works in Tamiḻ, attributed to Agastya and Vyāsa, 36 rasas from sources in Telugu and other languages, and 97 additional rasayogas. The pariśiṣṭa section also contains descriptions of diseases occurring in the *Basavarājīya*, and both verses and prose concerning weights and measures (quoted from the *Suśrutasaṃhitā*, *Śārṅgadharasaṃhitā*, *Kṛṣṇātreyasaṃhitā*, *Līlāvatī*, *Vaijayantīkoṣa*, and Manu).

Printed sources of the *Rasayogasāgara* are: *Āgneyapurāṇa*, *Aṣṭāṅgahṛdaya*, *Aṣṭāṅgasaṃgraha*, *Āyurvedaprakāśa* by Mādhava, *Āyurvedavijñāna* by Binod Lāl Sen, *Bhaiṣajyaratnāvalī* by Govindadāsa, *Bhelasaṃhitā*, *Bhāvaprakāśa*, *Bṛhadyogataraṅgiṇī*, *Bṛhatsaṃhitā*, *Cakradatta*, *Carakasaṃhitā*, *Cikitsākalikā* by Tīsaṭa, *Cikitsākramakalpavallī* by Kāśīnātha, *Cikitsāsāra* by Gopāladāsa, *Dhanvantari* by Śālagrāma, *Gadanigraha*, *Hārītasaṃhitā*, *Hitopadeśa* by Śrīkaṇṭhasūri, *Kāmaratna*, *Narapatijayacaryā* by Narapati, *Nighaṇṭuratnākara*, *Pākāvalī*, *Rājamārtaṇḍa* by Bhoja, *Rasacaṇḍāṃśu* by Dattātreya, *Rasacintāmaṇi* by Anantadeva, *Rasahṛdaya*, *Rasamañjarī* by Śālinātha, *Rasaprakāśasudhākara*, *Rasarājasundara* by Dattarāma, *Rasaratnākara* by Nityanātha, *Rasaratnasamuccaya* by Vāgbhaṭa, *Rasārṇava*, *Rasasaṃketakalikā*, *Rasasāra* by Govindācārya, *Rasataraṅgiṇī* by Sadānanda, *Rasāyanakhaṇḍa* by Nityanātha, *Rasāyanasāra* by Śyāmasundarācārya, *Rasendracintāmaṇi* by Ḍhuṇḍhukanātha, *Rasendrasārasaṃgraha* by Gopālakṛṣṇa, *Śārṅgadharasaṃhitā*, *Siddhabheṣajamaṇimā-*

lā, *Suśrutasaṃhitā*, *Triśatī* by Śārṅgadhara, *Vaidyajīvana* by Lolimbarāja, *Vaidyakalpadruma* by Raghunāthaprasāda, *Vaidyāmṛta* by Moreśvara, *Vaidyarahasya* by Vidyāpati, *Vaṅgasena*, *Vṛndamādhava*, *Yogacintāmaṇi* by Harṣakīrti, and *Yogaratnākara*.

Manuscript sources are: *Bāhaṭa* by Gaurīputrakārttikeya, *Basavarājīya*, *Bhaiṣajyasārāmṛtasaṃhitā* by Upendra, *Cikitsārahasya* by Hārītamuni, *Cikitsāratnābharaṇa* by Sadānandadādhīca, *Lohapaddhati* by Sureśvara, *Nārāyaṇavilāsa* by Nārāyaṇabhūpati, *Nūtanakalpa*, *Pāradayogaśāstra* by Śivarāmayogīndra, *Rasabodhacandrodaya*, *Rasadīpikā* by Ānandānubhava, *Rasajñāna* by Jñānajyotis, *Rasakalpalatā* by Magnirāma, *Rasakāmadhenu* by Cūḍāmaṇi, *Rasakaṅkālīya* by Kaṅkālayogin, *Rasakaumudī* by Jñānacandra, *Rasakaumudī* by Śaktivallabha, *Rasakinnara*, *Rasālaṃkāra* by Bhaṭṭarāmeśvara, *Rasamuktāvalī*, *Rasapaddhati* by Bindu, *Rasapārijāta*, *Rasapradīpa* by Prāṇanātha, *Rasarājalakṣmī* by Viṣṇupaṇḍita, *Rasarājaśaṃkara* by Rāmakṣṛṇa, *Rasarājaśiromaṇi* by Paraśurāma, *Rasaratnadīpikā* by Rāmarāja, *Rasaratnakaumudī*, *Rasaratnamaṇimālā* by Bābābhāī Vaidya, *Rasasāgara* by Kṣemāditya, *Rasasaṃgrahasiddhānta* by Govindarāma, *Rasasārasaṃgraha*, *Rasāvatāra* (anonymous), *Rasāvatāra* by Māṇikyacandra, *Rasāyanaparīkṣā*, *Rasāyanasaṃgraha* by Kṛṣṇaśāstrī Bhāṭavaḍekar, *Rasendracūḍāmaṇi* by Somadeva, *Rasendrakalpadruma* by Rāmakṛṣṇabhaṭṭa, *Rasendramaṅgala* by Nāgārjuna, *Rasendraratnakoṣa* by Deveśvara Upādhyāya, *Ratnākarauṣadhayoga*, *Strīvilāsa* by Deveśvara Upādhyāya, *Sūtapradīpikā*, *Ṭoḍarānanda*, *Vaidyacintāmaṇi*, *Vaidyacintāmaṇi* (laghu), *Vaidyadarpaṇa* by Prāṇanātha, *Vaidyavilāsa* by Raghunāthapaṇḍita, *Yogacandrikā* by Lakṣmaṇa, *Yogamahārṇava* by Rāmanātha, *Yogasaṃgraha*, and *Yogasamuccaya* by Vyāsagaṇapati.

The *Rasayogasāgara* is quoted in the *Āyurvedīya Khanijavijñāna*; it is one of the sources of the *Rasendrasambhava*.

Some of the rasayogas collected in the *Rasayogasāgara* have been studied.[162]

The author

The author does not give any information on his genealogy, place of residence, etc., in the introductory verses and the verses at the end of volume I. He lived in Bombay as an Ayurvedic practitioner and also wrote a work in Sanskrit called *Klomayathātathya*.[163]

Date

The *Rasayogasāgara* was compiled in the years preceding its publication.

The *Rasayogaśataka*

The *Rasayogaśataka* by Pradyumna Śarmā Nilaṅgekar[164] is a small treatise in 254 verses, which consists of a collection of about 125 prescriptions against a series of diseases which are arranged in agreement with the *Mādhavanidāna*.

The work is a Sanskrit version of the *Vaidyasmṛti*, written in Marāṭhī by the author's father, Govinda Śarmā.[165] The verses are composed in a variety of metres. Most of the formulae are of a simple type.

In spite of the title and the author's praise of rasaśāstra in his Nivedana, the *Rasayogaśataka* does not only contain rasayogas, but also about thirty prescriptions of an āyurvedic type without ingredients characteristic of iatrochemistry.

The author enlarged upon the work of his father by adding a series of rasāyana and vājīkaraṇa formulae, some prescriptions against women's diseases, some verses on bhasmaparīkṣā (228–231) and rasaśodhana (232–236), and, finally, some contraceptive prescriptions (246–249).[166]

Some formulae derive from earlier authorities (pūrvācārya), one formula (220–221) is attributed to Somanātha, but, in general, sources are not referred to.

The author belonged to a family of vaidyas and was a practising physician in Hyderabad.[167] He was a son of Gaṅgā and Govinda, and a grandson of Lakṣmī and Varadarāja.[168]

The *Rasendracintāmaṇi*

The *Rasendracintāmaṇi*, ascribed to Ḍhuṇḍhukanātha or to Rāmacandra Guha,[169] is a treatise on alchemy and iatrochemistry. Its structure resembles that of the *Rasendrasārasaṃgraha*, but, in contrast with the latter work, it also deals with deha- and lohavedha.

Contents[170]

Chapter one (śāstrāvatāra; 1–6) is of an introductory nature; it contains a eulogy of mercury and its products, which enable a human being to obtain an indestructable (ajarāmara) body, khecaratva and śivatva (4). Six types of benefit result from the darśana, sparśana, bhakṣaṇa, smaraṇa, pūjana and dāna of mercury (4–5). Mercury, when free from blemishes, is like Brahmā; it is like Janārdana when mūrchita, like Rudra when mārita, like Sadāśiva when baddha (5).

Chapter two (mūrchanādhyāya; 6–10) describes gandhakajāraṇa, two sikatāyantras, the preparation of kajjalī and nigaḍa. Chapter three (bandhanādhyāya; 10–23) enumerates nineteen saṃskāras: svedana, mardana, mūrchana, utthāpana, pātana, bodhana, niyamana, dīpana, anuvāsana, gaganādigrāsapramāṇa, cāraṇa, garbhadruti, bāhyadruti, yogajāraṇa, rañjana, sāraṇa, krāmaṇa, vedhana, and bhakṣaṇa (10). Saṃskāras described in the chapter are mardana, mūrchana, utthāpana (10–11), svedana (12), ūrdhva-, adhaḥ-, and tiryakpātana (12–13), bodhana (13–14), niyamana (14), dīpana (14), anuvāsana (14–15), grāsana (15–16), cāraṇa (16–18), jāraṇa (18–21), and druti (21–23). Chapter three also gives an account of the taptakhalla and dolāyantra (18). Chapter four (puṭapākādhyāya; 23–36) continues the description of the saṃskāras: rañjana (23–24), sāraṇa and the gandharvataila used for this purpose (24–28),[171] krāmaṇa (29), vedhana, kṣetrīkaraṇa, and bhakṣaṇa (29–36).

Chapter five (abhrīya; 36–41) is concerned withe mica (abhraka), its sattva (37), druti (38–39), māraṇa (39), amṛtīkaraṇa (39–40), sattvapātana, and sattvadruti (40–41). Chapter six (sarvagandhakādhyāya; 41–43) is about sulphur (gandhaka), its purification (41–43), and the preparation of gandhataila (43).

Chapter seven (sarvalauhādhyāya; 44–52) is concerned with the purification and killing of the seven metals (loha; dhātu): gold, silver, copper, iron, lead, tin, rītikā or rājarīti (brass), and kāṃsya (bronze). Chapter eight (viṣopaviṣasādhana; 52–65) deals

with the viṣas and upaviṣas (52–57), vajra and vaikrānta (57–58), tālaka, tuttha, bhūnāga, manaḥśilā, kharpara, vimala, mākṣīka, kāśīśa, kāntapāṣāṇa, varāṭikā, hiṅgula, maṇḍūra (58–64), and the nine gems (ratna; 64–65).

Chapter nine (prayogīya; 66–195) is about the medicinal uses of mercurial and other metallic preparations. The first part of this long chapter (66–96) is called rasāyanādhikāra and contains, as indicated by this name, rasāyana formulae and prescriptions. The second part is devoted to rasayogas against diseases which are arranged in conformity with the *Mādhavanidāna*.

The *Rasendracintāmaṇi*, chiefly written in verse, is accompanied by passages in prose which repeatedly give the impression of being an auto-commentary or a collection of glosses.[172]

The work itself is based on earlier treatises,[173] the teachings of the author's guru, and, in particular, his personal experience.[174]

Authorities and works mentioned in chapters one to eight are: *Bhuṣuṇḍopākhyāna* (3),[175] Govinda (21),[176] Nāgārjuna (13),[177] Nityanātha (22), *Rasahṛdaya* (25), *Rasārṇava* (3; 6), *Siddhilakṣmīśvara* (44),[178] *tantrāntara* (17), and Vaśiṣṭha (3).[179]

Schools of interpretation are alluded to (69).[180]

Chapter nine mentions many divine and other authorities to whom formulae are attributed.[181]

Numerous rasayogas of chapter nine are also found in the *Rasendrasārasaṃgraha*.[182]

The *Rasendracintāmaṇi* is quoted or referred to in Āśubodha and Nityabodha Senagupta's commentary on the *Rasaratnasamuccaya*, the *Āyurvedavijñāna*, *Āyurvedīya Khanijavijñāna*, *Bhāvaprakāśa*, *Bheṣajasaṃhitā*, *Bṛhadrasarājasundara*, Gulrājśarmamiśra's commentary on the *Āyurvedaprakāśa*, Hariśaraṇānanda's *Kūpīpakvarasanirmāṇavijñāna*, the *Pāradasaṃhitā*, *Rasajalanidhi*,[183] *Rasakāmadhenu*, *Rasatattvavivecana*, *Rasavidyāmahārṇava*, *Rasāyanasaṃgraha*, *Rasayogasāgara*, *Rasoddhāratantra*, Somadevaśarman's commentary on the *Āyurvedaprakāśa*, Trimalla's *Yogataraṅgiṇī* and *Bṛhadyogataraṅgiṇī*, Vaidyarāja's *Sukhabodha*, and the *Yogaratnākara*.

Mādhava's *Āyurvedaprakāśa* quotes numerous verses from the *Rasendracintāmaṇi*.[184]

Ḍhuṇḍhukanātha is quoted in Gulrājśarmamiśra's commentary on the *Āyurvedaprakāśa* and Hazārīlāl Sukul's commentary on the *Rasaratnasamuccaya*.

A commentary (ṭīkā) on the *Rasendracintāmaṇi* by Maṇirāma is quoted in Gulrājśarmamiśra's commentary on the *Āyurvedaprakāśa*. A short commentary by Ramānātha Gaṇaka is recorded,[185]

Special features

Eighteen poisonous substances are distinguished;[186] eight of these, śaktuka, mustaka, kaurma, darvika, sārṣapa, saikata, vatsanābhaka[187] and śṛṅgī,[188] may be used for medical purposes and rasāyana; the other ten, suitable for rasāyana, dhātuvāda and viṣavāda purposes, are: kālakūṭa, meṣaśṛṅgī, dardūra, halāhala, karkoṭa, granthi, hāridra, raktaśṛṅgī, keśara, and yamadaṃṣṭrā (52–54). Poisonous substances are also divided into four classes: brāhmaṇa, kṣatriya, vaiśya and śūdra, identifiable by their colours; white, red, yellow and black. Eight stages (vega) of intoxication are enumerated, characterized respectively by praśama, vepathu, dāha, patana, phena, vikalatā, jaḍatā, and maraṇa. A second classification, recognized by some authorities, distinguishes nine major (viṣa) and seven minor (upaviṣa) poisons; the nine major poisons are: kālakūṭa, vatsanābha, śṛṅgaka, pradīpana, halāhala, brahmaputra, hāridra, śaktuka, and saurāṣṭrika; the seven minor poisons are: arka, sehuṇḍa, dhustūra, lāṅgalī, karavīraka, guñjā, and ahiphena (56–57).

Some remarkable names of disorders in the formulae are: agramāṃsa (176),[189] bāhukampa (trembling of the arms; 149), jaṅghākampa (trembling of the legs; 149), lūtā (121; 192), and śukrapravāha (spermatorrhoea; 127).

The author

The *Rasendracintāmaṇi* is ascribed to Ḍhuṇḍukanātha[190] and to Rāmacandra of the Guha family.[191] The improbable view that Ḍhuṇḍhukanātha is a corruption of Daṇḍakanātha, i.e., Rāma, the son of Daśaratha,[192] which would make the author identical with the hero of the *Rāmāyaṇa*,[193] was already rejected by Girīndranāth Mukhopādhyāya.[194] Some scholars assume that both Ḍhuṇḍhukanātha and Rāmacandra Guha wrote a treatise called *Rasendracintāmaṇi*.[195]

Ḍhuṇḍhukanātha was a pupil of Kālanātha.[196]

Rāmacandra is sometimes credited with the *Rasapārijāta*,[197] a *Rasapradīpa*,[198] and a *Cakradattanāmakagrantha*.[199] G. Hāldār[200] ascribes a *Rasaratnākara* to him. He is also identified with the author of the *Rādhāvinodakāvya*.[201]

Date

The *Rasendracintāmaṇi* is posterior to the *Rasārṇava* and *Rasahṛdaya*, works quoted in it; it is also later than the *Rasaratnākara*, whose author, Nityanātha, is mentioned. The terminus ante quem is provided by the *Bhāvaprakāśa* and *Rasakāmadhenu* which refer to it. This evidence implies that the *Rasendracintāmaṇi* was written between the middle of the fifteenth century and the second half of the sixteenth century.[202]

The *Rasendracūḍāmaṇi*

The *Rasendracūḍāmaṇi* by Somadeva[203] is an important, systematically arranged, treatise on alchemy and iatrochemistry.

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The work consists of 1,398 verses, arranged in sixteen chapters (adhyāya).

Chapter one[205] (rasamahiman; 52 verses) contains maṅgalas addressed to Śiva and Rāma (1–2), a verse in praise of Raseśvara (3), a description of Rasamahābhairava (4), a verse praising Rasāṅkuśī (5), verses in homage of the Kaulikas[206] and their lord (Īśvara), Kaulika, i.e., Maheśvara (6–12),[207] and a description of the despised pākhaṇḍakaulika, who is a nāstika and vedanindaka (13); it deals with the mukti that can be reached by those adhering to the kaulika tradition, but not by the pākhaṇḍas (heretics)

(14–17), and with the importance of the body (18–24); the remaining part of the chapter is devoted to a eulogy of mercury and allied subjects.

Chapter two (śiṣyopanayanādi; 63 verses) begins with some verses giving information on the author and the purport of the chapter, which is called sūtrasthāna here (1–3). Subjects dealt with are: the initiation of a pupil (śiṣyopanayana; 4–8), the characteristics of the teacher and the sādhaka (9–12), the jāraṇa of mercury (14–22), the four faculties called śakti (23–24), the pūjā of Maheśvara and his attendants (25–29), and the pūjā of Rasabhairava and Rasāṅkuśā (30–57); the chapter ends with some verses on rasaśāstra.

Chapter three (rasaśālānirūpaṇa; 35 verses) describes the laboratory (rasaśālā) and its inventory (1–20ab), some implements (20cd–23), and the persons who are qualified to take part in alchemical operations (24–35).

Chapter four (paribhāṣā; 117 verses) gives definitions (paribhāṣa) of a large number of technical terms, and one formula, called siddhacapalarasa (58cd–71).

Chapter five (164 verses) contains descriptions of thirty yantras (3–94), sixteen types of mūṣā (103–126), four types of koṣṭhī (128–143), and ten types of puṭa (148–161);[208] subsidiary subjects are jalamṛd (57cd–58),[209] vahnimṛtsnā (5.59–61),[210] the mūṣā in general (95–98), sandhilepana (99),[211] the clay (mṛttikā) and other substances used for the mūṣā (100–102), the vaṅganāla (141–142ab),[212] puṭa in general (144–147), types of puṭa left undescribed (162), and the synonyms of upala (cow dung used as fuel; 163).

Chapter six (72 verses) opens with verses characterizing a divine herb (divyauṣadhi), enumerating four categories of alchemically important drugs of vegetable origin (rasauṣadhi, mahauṣadhi, siddhauṣadhi, divyauṣadhi), and listing the six types of divyauṣadhi: vṛkṣa, vallī, latā, gulma, tṛṇa, and kanda (1–5). The main part (6–71) is devoted to a description of the sixty-four divyauṣadhis, which are particularly suitable to achieve the bandha of mercury.

Chapter seven (eleven verses) contains a list of the names of the sixty-eight rasauṣadhis, which are not described by Somadeva. These plants are said to grow in the Vindhyas and in the Himālaya and on the mountains called Malaya, Gomantaka,[213] Śrīgiri,[214] Sahya,[215] Pāriyātraka,[216] Kiṣkindha,[217] Māhendra,[218] and Mālyavant.[219]

Chapter eight (48 verses) enumerates forty-six plants, forming the sarpākṣyādigaṇa, which are especially useful in the niyamana of mercury, for which reason they are called niyāmikāḥ (1–8ab), eighty-four plants, useful in making rasabhasman, which form the vyāghrikādigaṇa (9cd–20), forty plants, forming the raktasnuhyādigaṇa, employed in the killing and bandha of mercury (21–28), eight plants, forming the kadalyādigaṇa, which promote the liquefaction (drāvaṇa) of metals, rasas, etc. (29–30), and eighteen plants, constituting the kākamācyādigaṇa, which are employed in the saṃskāra called krāmaṇa (31–33); four particularly powerful herbs are separately described: ekavīrā, mahāvīrā, prayoga,[220] and hemadaṇḍikā or hemavallī (34–41); the thirteen (organic and inorganic) drugs of the vajradaṇḍādivarga are useful in rasāyana preparations (42–44), the eight plants of the bhūpāṭalyādivarga promote the bandha of mercury (45–46ab), and the five plants of the pañcaratnakagaṇa are suitable to achieve deha- and lohasiddhi (46cd–47).

Chapter nine (paribhāṣāprakaraṇa; 31 verses) describes groups of substances and their properties: madhuratraya (1ab), mūtravarga (1cd–2ab), pañcamṛttikā (2cd–3ab), kṣāratraya (3cd), kṣāravarga (4–6ab), amlavarga (6cd–8), lavaṇavarga (9–10), viṣavarga (11–12), upaviṣavarga (13–14ab), tailavarga (15–16ab), dugdhavarga (16cd–18ab), pittavarga (18cd–19), vasāvarga (20), viḍvarga (21–22ab), raktavarga (22cd–23), pītavarga (24), śvetavarga (25), kṛṣṇavarga (26), śodhanīyagaṇa (28), lohakāṭhinyanāśanayoga (29), and drāvaṇagana (30).

Chapter ten (147 verses) deals with the eight mahārasas: ghana (= abhraka), rājavarta, vaikrānta, sasya, vimala, adrijāta (= śilājatu), tuttha and tāpya (= mākṣika) (1).

Its subjects are: abhraka (mica), its four varieties, its purification and killing, the extraction of its essence, the purification, softening and killing of this essence (2–54); the purification and killing of rājāvarta, followed by the extraction of its essence (55–60); the purification, killing, the extraction of the essence, etc., of vaikrānta (61–71ab), sasyaka (71cd–84),[221] vimala (85–94), śilājatu (95–110ab), rasaka (110cd–128),[222] and mākṣika (129–147).

Chapter eleven (114 verses) gives an account of the eight uparasas and the eight sādhāraṇarasas.

The eight uparasas are:[223] gandhāśman (= gandhaka), tāla (= haritāla), tuvarī, kunaṭī (= manaḥśilā), suvīra (= sauvīrāñjana), kaṅkuṣṭha, khecara (= kāsīsa), and gairika (1).

The subjects of the first part of the chapter are: sulphur (gandhaka), its four varieties, its properties, a story explaining why sulphur is also called balivasā,[224] the purification and liquefaction (druti) of sulphur, uses of sulphur and its products (2–31); the varieties, properties, purification, etc., of haritāla (32–48), tuvarī (49–53), manaḥśilā (54–61), añjana (62–68), kaṅkuṣṭha[225] (69–77), kāsīsa (78–84), and gairika (85–89).

The second part of the chapter is concerned with the eight sādhāraṇasasas: kampilla,[226] gaurīpāṣāṇa,[227] navasāraka,[228] kaparda,[229] vahnijāra (= agnijāra),[230] girisindūra,[231] hiṅgula, and boddāraśṛṅga[232] (90–91). Somadeva describes these substances and their properties; he adds verses on the purification of varāṭikā (= kaparda) and hiṅgula (cinnabar), a verse on the purification of sādhāraṇarasas in general, and a verse on mixing of the purified essences of uparasas and sādhāraṇarasas; agnijāra, however, need not be purified[233] (92–114).

Chapter twelve (68 verses) deals with the nine gems (ratna): māṇikya (ruby), muktāphala (pearl), vidruma (coral), tārkṣya (emerald), puṣpa (topaz), bhidura (diamond), nīla (sapphire), gomedaka (zircon), and vidūraka (cat's eye). The varieties, characteristics, blemishes and properties of these gems are described.

The ruby is of two varieties (padmarāga and nīlagandhi); the number of its blemishes is eight (14–16). The pearl (8–10) has nine characteristics. The emerald has seven characteristics and a large number of blemishes (14–16). The topaz presents eight good and nine bad characteristics (17–19). Diamonds are classified as male, female and napuṃsaka, or, according to their colour, as brāhmaṇa, kṣatriya, vaiśya and śūdra (20–25); the five blemishes that may be found in all gems are listed (27–28);[234] subjects added are the purification and killing of diamonds, the use of their bhasman, and a rasāyana formula (29–43). Two varieties of sapphire are distinguished: jalanīla

and indranīla (44–47). The zircon has eight good and seven bad characteristics (48–50). Cat's eyes have six good and six bad characteristics (51–52). The general methods of purifying and killing gems are described (54–56), followed by a procedure to liquefy (druti) them (57–65). The chapter ends with the advantages of wearing gems (66).

Chapter thirteen (78 verses) lists the following nine metals: (1) śuddhaloha: kanaka (gold), rajata (silver), bhānu (copper) and aśmasāra (iron), (2) pūtīloha: nāga (lead) and tin (vaṅga), (3) miśraloha (alloys): pittala, kāṃsya and varta (1). The terms dhātu and loha are used to denote metals.

Gold[235] is of five varieties; its purification and killing are described, followed by the properties and uses of its bhasman (2–25). Silver (26–39)[236] and copper (40–76)[237] are similarly described. The usual three types of iron[238] are distinguished: muṇḍa (cast iron), tīkṣṇa, and kānta (steel). Muṇḍa is of three varieties, the last of which is called kaḍāraka; the varieties of tīkṣṇa are khara, sāra, honnāla, tārāpaṭṭa and kālaloha, those of kānta are romaka, bhrāmaka, cumbaka and drāvaka (77–95). Somadeva gives an account of the purification of iron and its killing, the uses of iron and its bhasman, and the disorders caused by impurities (96–130); half a verse only is devoted to maṇḍūra (127cd).[239] Tin,[240] its varieties, properties, purification and kiling are dealt with, followed by a rasāyana formula (131–145). The verses on lead[241] describe its characteristics and properties, its purification, its killing by means of a special apparatus, called bhrāṣṭrayantra, and a rasāyana formula (146–161). Two varieties of pittala (brass)[242] are described, rīti(kā) and kākatuṇḍī,[243] of which rīti is superior in quality; the purification, killing and liquefaction of rīti are dealt with, followed by a rasāyana formula (162–173). Kāṃsya (bronze)[244] is said to be made from eight parts of copper and two parts of tin; its characteristics, properties, purification and killing are described (174–179). Varta(loha) or pañcaloha[245] is an alloy of kāṃsya (bronze), arka (copper), rīti (brass), loha (iron) and ahijāta (lead);[246] its purification and killing are dealt with (180–184ab).

The chapter proceeds with the preparation of bhūnāgasattva (186–197) and the properties of a finger ring (ūrmikā) of this material (198). The chapter ends with the preparation of aṅkolataila, its properties and its uses (199–229).

Chapter fifteen (72 verses) is concerned with the praise of mercury (2–3), its origin (4–13ab), the way of procuring it (13–15),[247] the etymology (nirukti) of its names (16–20), the five doṣas (mala, viṣa, vahni, mada, darpa) and seven kañcukas (bhū-, śaila-, jala-, tāmra-, ayaḥ-, nāga-, and vaṅgasamudbhava) of mercury (21–27); a list of the eighteen saṃskāras and the opinions of a series of authorities on the purification of mercury (28–35); descriptions of the saṃskāras called svedana, mardana, mūrchana (36–39), ways to remove the doṣas and kañcukas (40–49), the saṃskāra called rodhana (52–53), mukhakaraṇa (54), svedana again (55–56), saṃnyāsa (57–58), dīpana (59–61), the rākṣasavaktra of mercury (62–64), and some connected subjects (65–72).

Chapter sixteen (98 verses) is about the jāraṇā of abhraka (mica) and some other substances. The jāraṇā of abhrakasattva, resulting in pakṣaccheda of mercury, is the main subject (1–85);[248] eight grāsas (doses of abhraka added to mercury) are described; additional subjects are biḍa (32), the form of mercury called daṇḍadhārin (33–34), and chinnapakṣa mercury (44 and 75). The chapter ends with the jāraṇa of copper, iron and gold (86–98).

Somadeva frequently mentions his own name in his treatise;[249] he also refers to particular chapters of his book (14.60; 15.57).

Several earlier authorities and other persons are referred to: Bhairava (6.3; 12.25 and 28),[250] Bhāluki (15.33 and 54),[251] Bhāskara (15.32),[252] Brahmajyotis (5.61),[253] Devasūnu (14.199),[254] Dineśvara (15.33),[255] Girīśa (14.114),[256] Govinda (15.34),[257] Kharpaṇa (4.58ab),[258] Manthānabhairava (1.44; 6.1),[259] Mṛgacārin (4.96),[260] Nāgārjuna (5.61; 11.91),[261] Nandikeśvara (14.58), Nandin (1.35; 5.56, 61, 77, 138; 14.128; 15.29, 35, 66),[262] Śambhu (8.27),[263] Śiva (14.58), Somanātha (14.70),[264] Śrīkaṇṭha (7.1),[265] and Svacchandabhairava (4.52).[266]

A number of verses of the *Rasendracūḍāmaṇi* are also found in the *Rasārṇava*.[267]

The *Rasendracūḍāmaṇi* is quoted in the prakīrṇaka pariśiṣṭa of the *Ānandakanda*, Narendranātha's *Capalanirṇaya*,[268] Gulrājśarmamiśra's commentary on the *Āyurvedaprakāśa*, Hazārīlāl Sukul's commentary on the *Rasaratnasamuccaya*, the *Rasajalanidhi*,[269] *Rasakāmadhenu*, *Rasamitra*, *Rasaratnākara*, *Rasaratnasamuccaya*,[270] *Rasasindhu*, the commentary on the *Rasataraṅgiṇī*, the *Rasatattvavivecana*, *Rasayogasāgara*, *Ratnākarauṣadhayogagrantha*, *Rasendrasambhava*, and Somadevaśarman's commentary on the *Āyurvedaprakāśa*. It was one of the sources of the *Āyurvedaprakāśa*, Hariśaraṇānanda's *Kūpīpakvarasanirmāṇavijñāna*, the *Pāradasaṃhitā* and Yādavjī's *Rasāmṛta*.

The *Ānandakanda* contains many verses which are also found in the *Rasendracūḍāmaṇi*. The *Rasendracūḍāmaṇi* has at least two verses in common with the *Dhanvantarīyanighaṇṭu*.[271]

Somadeva is cited in the commentaries by Āśubodha and Nityabodha Senagupta, Hazārīlāl Sukul, and Khare on the *Rasaratnasamuccaya*, in Somadevaśarman's commentary on the *Āyurvedaprakāśa*, and in the *Rasaprakāśasudhākara*.

The *Rasaratnasamuccaya* mentions Somadeva as one of the Rasasiddhas.

The *Rasendracūḍāmaṇi* is a rasaśāstra work that had much influence on later treatises. The *Rasaratnasamuccaya* reproduces a large number of its verses; the lists of divyauṣadhis and rasauṣadhis are, for example, also found in the *Rasaprakāśasudhākara*.

Special features[272]

Mercury is said to cure diseases arising from the three doṣas when combined with gold, pitta diseases when combined with silver, kapha and vāta diseases when combined with copper, the various kinds of śūla when combined with iron, blood diseases when combined with lead, and meha when combined with tin (1.34). A stray verse of chapter one describes the plant called vṛścikālī (1.48). Four śaktis are distinguished: Mālinī, which gives hemaśakti, Vajriṇī, giving longevity, Kāntā, giving hema- and lohasiddhi, and Abhrā, which gives bandha of mercury (2.23–24). The verses on the construction of a maṇḍala[273] mention ten Dūtīs (female messengers), associated with Śiva, whose names are Lepikā, Kṣepikā, Krāmaṇī, Rañjikā, Lohaṭī, Bandhinī, Bhūcarā, Mṛtyunāśinī, Vibhūti, and Khecarī (2.28–29).

Some implements that should be available in an alchemical laboratory are: kaṭatrāṇī,[274] kṣudrakṣipra, kṣurapra,[275] pālikā, and karṇikā;[276] three types of strainer (cālinī) are described (3.6–20ab).

Technical terms explained in chapter four are: dhānvantarabhāga,[277] rudrabhāga,[278] kajjalī,[279] rasapaṅka,[280] navanītapiṣṭī,[281] piṣṭī,[282] pātanapiṣṭī,[283] hema- and tārakṛṣṭī,[284] varaloha,[285] svarṇaraktī,[286] tāraraktī,[287] candra- and analadala,[288] sita- and pītadala,[289] lohanāga,[290] śulbanāga,[291] piñjarī,[292] candrārka,[293] nirvāpaṇa or nirvāhaṇa,[294] vāritara,[295] rekhāpūrṇa,[296] apunarbhava,[297] niruttha,[298] bīja,[299] tāḍana,[300] dhānyābhraka,[301] sattva,[302] ekakoliśikha,[303] śikhitra,[304] hiṅgulākṛṣṭa,[305] ghoṣākṛṣṭatāmra,[306] guhyanāga,[307] varanāga,[308] utthāpana,[309] ḍhālana,[310] capala,[311] dhauta,[312] dvandvana,[313] anuvarṇa,[314] bhañjinī,[315] pataṅgī,[316] phalikā,[317] pataṅgīrāga,[318] āvāpa (also called pratīvāpa and ācchādana),[319] nirvāpa or snapana,[320] śuddhāvarta,[321] bījāvarta,[322] svāṅgaśīta,[323] bahiḥśīta,[324] svedana,[325] mardana,[326] mūrchana,[327] naṣṭapiṣṭa,[328] utthāpana,[329] pātana,[330] rodhana,[331] niyamana,[332] dīpana,[333] grāsamāna,[334] jāraṇā,[335] cāraṇā,[336] druti,[337] biḍa,[338] rañjana,[339] sāraṇā,[340] vedha,[341] udghāṭana,[342] svedana, and saṃnyāsa.[343]

The saṃskāra called krāmaṇa[344] is not described in chapter four, but referred to as krāmaṇa in chapter eight (8.31–33) and as parikramavidhi in chapter fifteen (15.28). Some saṃskāras are, differently worded, dealt with again in chapter fifteen, while chapter sixteen is devoted to the saṃskāra called jāraṇā.

The yantras described in chapter five are: dolā-,[345] khalva-,[346] valabhī-,[347] ūrdhvapātana-, adhaḥpātana-, tiryakpātana-,[348] kacchapa-,[349] antarālika-,[350] tāpikā-, pratigarbha-, garbha-,[351] pālikā-,[352] ghaṭa-,[353] iṣṭikā-,[354] vidyādhara-,[355] ḍamaruka-,[356] nābhi-,[357] grasta-,[358] tulā-,[359] sthālī-,[360] koṣṭhikā-,[361] vālukā-,[362] lavaṇa-,[363] dhūpa-,[364] kuṇḍa- or svedana-,[365] ḍhekī-,[366] somānala-,[367] and nālikāyantra.[368] Unusual yantras are those called grasta-, pratigarbha- and tāpikāyantra. A bhrāṣṭrayantra (14.149) and kandukayantra (14.229) are occasionally referred to by Somadeva.

The types of mūṣā (crucible) described by Somadeva are: vajramūṣā,[369] yogamūṣā,[370] vajradrāvaṇamūṣā,[371] gāramūṣā,[372] varamūṣā,[373] varṇamūṣā,[374] rūpyamūṣā,[375] biḍamūṣā,[376] vṛntākamūṣā,[377] gostanīmūṣā,[378] mallamūṣā,[379] pakvamūṣā,[380] golamūṣā,[381] mahāmūṣā,[382] mañjūṣamūṣā,[383] and muśalamūṣā.[384]

The types of koṣṭhī[385] are: aṅgārakoṣṭhī,[386] pātālakoṣṭhikā,[387] gārakoṣṭhī,[388] and tiryakpradhamakoṣṭhī.[389] A prakaṭakoṣṭhī is once referred to (4.97).

The puṭas[390] described are: mahāpuṭa,[391] gajapuṭa,[392] vārāhapuṭa,[393] kukkuṭapuṭa,[394] kapotapuṭa,[395] govarapuṭa,[396] bhāṇḍapuṭa,[397] vālukāpuṭa,[398] bhūdharapuṭa,[399] and lāvakapuṭa.[400]

The descriptions of the sixty-four divyauṣadhis of chapter six are important and have influenced later authors. The group consists of: akṣīrā, aparṇā, atasīvallikā, bhṛṅgavallī, bhūtakeśī, bhūtumbinī, bilvinī, bodhilatā, brāhmaṇī, camarikā, cāṇḍālī, chattriṇī, citravallī, devadālī, gandharvī, gomārī, gonasā, gorocanalatā, gośṛṅgī, īśvarī, kākinī, karasīvallikā, karavīralatā, karīrī, kṛṣṇalatā, kṣīravallī, kūrmalatā, kuṭajavallī, lambinī, laśunavallī, mādhavī, madyagandhā, mahānāgī, mahauṣadhi, mahauṣadhī, maṇḍūkalatikā, mraṅkṣaṇagandhinī, mūlakandā, munivallī, nāginī, nimbukīlatā, pattravallī, pītavallikā, raktāṅgī, raktavallī, rohiṇī, rudantikā, saptapattrī, sarpiṇī, somakalā, somavallī, somavṛkṣa, sthalapadminī, tāmravallikā, tilakandā, tridaṇḍī, triśūlī, uccaṭā, udumbaralatā, vajravallī, vārāhī, vijayā, viśālā, and vyāghrapādī.[401]

The sixty-eight rasauṣadhis of chapter seven, listed without being characterized, are: ajamārī, alambuṣā, aparājitā, ardhacandrā, bhārṅgī, bhṛṅgī, bṛhatī, candrodakā, ciñcī, citrapādī, dhanvayāsaka, durgandhā, garuḍī, gojihvā, guḍūcī, halinī, haṃsapādikā, hemapuṣpī, hīriṇī, īśvarī, jalakumbhī, jalamūlakā, jalāpāmārga, jalapippalī, jālinī, jalotpala, kākamācī, karmasphoṭī, kāśmarī, kukkuṭī, mālārjuna, māṃsī, māṇḍūkī, meghanādī, mohinī, mūrvā, muśalī, nandinī, pāgava, pāṣāṇī, pāṭalā, paṭolī, potakī, rasā, sadacitrikā, samaṅgā, sārivā, sarpākṣī, śaṭī, śikhipādī, śīśikā, sitagandhinī, sthalaprasāriṇī, śukanāsikā, tiktakā, tulasī, tuṣāmbu, uttamā, vajrakandikā, vanakūṣmāṇḍavallī, vanamālā, vārāhī, vāsā, veṇukā, vidārī, viṣā, viṣaghnī, and vṛścikālī.

The forty-six plants belonging to the sarpākṣyādigaṇa are: ākhukarṇikā, āmalakī, anantā, bhṛṅgarāja, brahmadaṇḍikā, dviparṇī, ekaparṇī, gojihvā, jalabimbī, jambukī, jvālinī, kākamācī, kapotī, kokilākṣa, kṣīriṇī, kukkuṭajaṅghā, kuraṅginī, kuraṇṭaka, mahābalā, maṇḍūkaparṇikā, matsyākṣī, meghanāda, meṣaśṛṅgī, mūrvā, nāgabalā, nīlī, padmacāriṇī, pāṭhā, phaṇi, prapunnāṭa, punarnavā, rāsnā, sahadevī, samaṅgā, śarapuṅkhā, sarpākṣī, śatāvarī, śikhaṇḍinī, śvetādriparṇikā, śyāmaparṇikā, tittiḍī, triparṇī, tripattrā, tulasī, vandhyakarkoṭī, and viṣṇukrāntā (8.1–8ab).[402]

The eighty-four plants of the vyāghrikādigaṇa are: ajamārikā, aṅganāyakī, arkapuṣpikā, bākucī, bhūśuṇḍī, brahmarañjaka, bṛhatī, cakrikā, cāṇḍālī, dantikā, devadālī, ekavīrā, gajakarṇikā, gojihvā, haṃsapādikā, hanūmantī, hemalī, hilamocaka, jagatī, kākajaṅghā, kākatuṇḍī, kañcukī, kaṅguṇī, kaṅkatī, kāravellī, karkoṭī, kārpāsī, kāsamārī, kaṭutumbikā, keśinī, koṭarākṣī, kṛṣṇadhattūra, kṛṣṇākṣīva, kumārī, kumbhinī, lakṣmī, lāṅgalī, mahākālī, mālikā, māyūra, meghapuṣpī, meṣaśṛṅgī, nāgavallikā, nāginī, narajīvā, narakasā, padmacāriṇī, paṭolikā, putrajīvikā, rākṣasī, raktacitrā, raktasnuhī, rasanirjīvakārī, rudantī, śākhoṭa, saktukā, saktuśṛṅgī, śambarā, śamī, śaṅkhapuṣpī, ṣaṭkārī, sitāṅkola, somavallarī, śṛgālajihvikā, sūryabhaktā, śvetaguñjā, śvetārka, tuvaravallī, uccaṭā, vahni, vahnimardanī, vahnimārī, vajriṇī, vanapīluka, viśālā, vṛkṣarāja, vyāghranakhī, vyāghrapādikā, vyāghrī, vyāghrikā, yajñavallikā, and yavaciñcā (8.9cd–20).[403]

The forty plants of the raktasnuhyādigaṇa consist of: aṅgāravallikā, arkapattrī, barhikā, brahmadaṇḍī, cukra, drumajyotis, hemavallarikā, jīmūta, jyotiṣmatī, kākamācī, kāladaṇḍī, kāṣṭhodumbarikā, krauñcikā, kṣīrakukkuṭī, kṣīramārjārī, lāṅgalī, mohinī, nāgajihvā, nāgakaṇṭhī, nāgakarṇī, nīlajyotis, nīlikā, raktāgni, raktasnuhī, rudantī, śākhoṭī, śaṅkhapuṣpikā, somavallikā, sthalapadminī, tāmravallarī, tridaṇḍī (mentioned twice), triparṇī, triśūlā, tṛṇajyotis, uccaṭā, udumbarī, varā, vartulaparṇā, and vṛddhadāru (8.21–28).[404]

The kadyalyādigaṇa consists of drāvaṇī, kadalī, kākamācī, kaṭukoṣātakī, kṣirakañcukī, nīrapippalikā, śigrukā, sūryabhakta (8.29–30).[405] The kākamācyādigaṇa comprises arjunī, arkapattrī, brāhmī, carā, haṃsapādī, kākamācī, kāravallī, kāsamarda, kṛtāñjali, kṣīranālikā, kuruvaka, lakṣmaṇā, meghadhvani, nāginī, sahadevikā, tāmbūlī, vārāhakarṇikā, and vyālikā (8.31–33).[406] The bhūpāṭalyādivarga is made up of bhūpāṭalī, hemavallī, mārkava, nāgadhārī, paṭolī, siṃhavallikā, śūkarī, and yogārī (8.45–

46ab). The pañcaratnakagaṇa is composed of indīvarī, kaṅkālakhecarī, mantrasiṃhāsanī, niśācarī, and pāṭalā (8.46cd–47).

The viṣavarga of chapter nine consists of kālakūṭa, pīta, sāktuka, śṛṅgika, and vatsanābha (9.11).[407] The upaviṣavarga consists of arka, jayā, kanaka, karavīra, lāṅgalī, nīlaka, and viṣamuṣṭi (9.13).

Chapter ten (10.61) mentions, like the *Rasamañjarī* and *Rasaprakāśasudhākara*, eight varieties of vaikrānta.

The sādhāraṇarasas of chapter eleven form a new group, not mentioned under this name in earlier treatises.

The connections between the nine gems and the nine grahas, as found in the *Rasendrācūḍāmaṇi*, disagree with those mentioned in a number of other treatises (12.1–2).[408]

Chapter fourteen employs the term ariloha (14.15ab), without explaining it.[409] A verse from the same chapter (14.29) asserts that tin, when it touches Rāma's sandals, turns into a kind of silver that cures all diseases. The variety of tīkṣṇaloha called tārāpaṭṭa is mentioned (14.80), but not described.

The minor gems (uparatnas), poisons (viṣa) and minor poisons (upaviṣa) are not dealt with as to their purification, properties, uses, etc.; the viṣas and upaviṣas are simply listed (9.11–14).

A complete list of the eighteen saṃskāras of mercury is found in chapter fifteen only (15.28).

Some noteworthy plant names are adrī (9.23), barbūra (14.66 and 143), barbūrī (11.77), karpūragandhinī (9.23), and krūravallī (9.26).

Important is the description of the process by means of which varanāga is prepared from a mixture of nīlāñjana (stibnite) and tīkṣṇaloha (4.52cd–53ab). The verse shows that the process by which antimony (varanāga) is obtained was known in India much earlier than in Europe.[410]

The author

The author, who was a Hindu,[411] as shown by the maṅgalas (1.1–2), addressed to Śiva and Rāma, calls himself Soma (2.1), Somadeva, and Devasūnu (14.199). He was a son of a mantrin called Nārāyaṇa[412] and was of mahāvīravaṃśa (2.1).[413] Somadeva himself (15.66) and the colophons add that he was an important person (pati, varapati, puravarapati)[414] at Śrīkaravālabhairavapura(vara).[415] V. Śukla[416] suggested that this may be the name of a village donated to Somadeva by the king whom he served as a minister; Siddhinandana Miśra[417] regards it as the name of a city (śreṣṭhanagarī) or the capital (rājadhānī) of some small kingdom. V. Śukla expressed as his opinion that Somadeva may have been a vaiśya, as indicated by the name of the vaṃśa to which he belonged. The same author brought forward that he may have been born in Rājasthān and that he settled in Gujarāt or Kāṭhiāvāṛ later in life.[418]

Somadeva was a person of wide learning; he states himself that he was an expert in śastra and śāstra, Nyāya, Sāṃkhya and Vedānta (nayanaguṇavidhi, satpramāṇa, sāṃkhya, sānta), rasaśāstra and medicine (vaidyavidyā) (2.1).

A work called *Rasendraparibhāṣā* is attributed to Somadeva by G. Hāldār, who also

asserts that Somadeva revised Vāgbhaṭa's *Rasaratnasamuccaya*, and that he collaborated with his teacher Acyuta in writing a joint work, the *Raseśvarasiddhānta*.[419]

Date

The reference to Govindabhagavant indicates that the *Rasendracūḍāmaṇi* is posterior to the *Rasahṛdaya*. The profuse quotations from Somadeva's work in the *Rasaratnasamuccaya* prove that the latter treatise is later.

An important clue to Somadeva's date is provided by the *Rasasindhu*, which mentions the *Rasendracūḍāmaṇi*. This piece of evidence points to a period before the third quarter of the fourteenth century for the composition of the *Rasendracūḍāmaṇi*.

The *Rasendracūḍāmaṇi* is usually placed in the twelfth or thirteenth century.[420]

Chapter 12
Rasendramaṅgala to *Rasopaniṣad*

The *Rasendramaṅgala*

The *Rasendramaṅgala* by Nāgārjuna[1] is an important and very interesting early treatise. Confusion concerning this work was created by Prafulla Chandra Rāy, who based his studies on the text of the Jammu MS, catalogued as the *Rasaratnākara* of Nāgārjuna; probably he was already aware of the problems caused by this MS, which gives *Rasendramaṅgala* as the title in some of the colophons, but the one who first drew attention to the confusion of the so-called *Rasaratnākara* of Nāgārjuna with the *Rasendramaṅgala*[2] was P. Cordier.[3]

A number of Indian scholars also noticed the identity of the so-called *Rasaratnākara* with the *Rasendramaṅgala* and commented on the remarkable fact that all the verses from the *Rasaratnākara* MS in *P.C. Rāy's 'A History of Hindu Chemistry' and P. Rāy's 'History of Chemistry' form part of the *Rasendramaṅgala*. Explicit notice of this may have been given first by Durgāśaṃkar Kevalrām Śāstrī in his *'Āyurvedno itihās' (1942).[4] Atrideva Vidyālaṃkāra's references to this discovery[5] were repeated by later Indian authors.[6]

The jumble concerning the *Rasendramaṅgala* was definitely clarified by D. Wujastyk,[7] who also pointed to the close relationship between Nāgārjuna's *Kakṣapuṭa* and the *Mantrakhaṇḍa* of Nityanātha's *Rasaratnākara*.

Contents[8]

The *Rasendramaṅgala* consists of about 400 verses, arranged in eight chapters.[9] The Paris and Bombay manuscripts have the following four chapters: (1) rasoparasaśodhanādhikāra, (2) vajramāraṇasattvapātanābhrakādidrutidrāvaṇalohamāraṇādhikāra, (3) bhasmasūtaka, (4) guṭikāsattvadrutijalūkāmāraṇādirasabandhana.

The treatise opens with a maṅgala addressed to Śrīvardhamāna-Jineśvara and the author's teachers, followed by a eulogy of mercury, which bestows Śiva's bliss and enables one to reach the other shore of the ocean of transmigration (saṃsārasamudratāraka). The title of the treatise that will be exposed (*Rasendramaṅgala*) and the name of its author (Nāgārjuna) are mentioned.

The next verses (3–5) summarize the contents of the eight chapters of the treatise, now called *Rasamaṅgala* (6): (1) the purification (śodhana) of the rasas, uparasas and lohas, (2) the killing (māraṇa) of vajra, etc., and liquefaction (drāvaṇa) of all the dhātus, (3) rasabandha, (4) the preparation and application of pills (guṭikāvidhi), (5) the treatment of all the diseases, caused by vāta, etc., (6) the preparation of diverse per-

fumes (citragandhayukti) and ointments (añjana), (7) a treatise on poisons (viṣatantra), (8) groups of substances (gaṇa).

A long series of stanzas in praise of mercury and the physician with expertise in its application (7–17) precedes the section of chapter one that deals with processes (saṃskāra) making mercury fit for therapeutic and alchemical uses.

The five natural blemishes (naisargikadoṣa) of mercury are mala, viṣa, vahni, gurutva and cāpalya, the two aupādhika impurities (doṣa) arise from tin and lead. These doṣas cause particular disorders and should therefore be removed (18–20). The eighteen saṃskāras are referred to and enumerated: saṃsvedana, mardana, mūrchana, utthāpana, pātana, dīpana, niyamana, rodhana, cāraṇa, the two kinds of druti, jāraṇa, grāsapramāṇa, rañjana, saṃsāraṇa, krāmaṇa, vedha, and yoga (21–23). The purificatory processes (26–31) and the first eight saṃskāras are dealt with (32–39).

The second part of chapter one is devoted to the purification of some rasas and uparasas[10] (40–48): rājāvarta, rasaka, darada, mākṣika, manaḥśilā, tāla, abhraka, vajra(?), and vaikrānta.[11] The last part of the chapter is about the purification of metals and alloys (loha; 1.49–64): śulva (copper), heman (gold), tāra (silver), āra (brass), ghoṣa (bronze), tīkṣṇa (iron), nāga (lead), and vaṅga (tin).[12]

Chapter two gives an account of the killing and liquefaction of diamonds (vajra) and vaikrānta (1–17), the extraction of the essence (sattvapātana) of mica (abhraka), mākṣika, tāla, rājāvarta, vimala and abhraka,[13] and the liquefaction (drāvaṇa, druti) of metals and gems.[14] The chapter ends with verses on the killing of metals.[15]

Chapter three contains a series of rasas to be used in the treatment of diseases: svacchandabhairava, tīkṣṇamukha,[16] śulva,[17] saṃdhānabhairava, śaśanagarbha, kāntavallabha,[18] jayamaṅgala,[19] vaḍavāmukha,[20] siddhasūtavaṭī,[21] sarvājīrṇahara,[22] gandhakādya, meghanāda,[23] haṃsanāda, nāgendra,[24] ravagendra(?), and mṛgāṅka.[25] The preparation of mercurial bhasman of various colours is described, together with their medicinal[26] and alchemical uses. A few stray verses are about the seven varieties of vaikrānta: white, red, yellow, blue, grey like a pigeon, coloured like a peacock's throat, and green like an emerald. Recipes containing vaikrānta are also given.[27] The chapter goes on with a description of the garbhayantra and the preparation of mercurial bhasman, followed by verses extolling the effects of the bhasman, if properly used.

The remaining part of chapter three consists of rasayogas again: saṃkocagolaka (two formulae),[28] candraprabha,[29] parpaṭī, pramarda...(?), sūryaprabha, pañcāmṛta, laṅkeśvara, māṇikyakhaṇḍa, kruṣṭeśvara, pratāpalaṅkeśvara, saṃkocapiṣṭikā,[30] kanakasaṃkoca, gaganādya,[31] tīkṣṇamukha,[32] ghanagarbha,[33] a piṣṭikā,[34] pratāpalaṅkeśvara,[35] madātyayahara,[36] bhasmasūtaka, śulvacūrṇa, rasarāja,[37] mahārasa, gandhamardana,[38] pratāpa, gandhajaka(?), gaganamukha, and dvijendra;[39] some recipes, concerned with the preparation of a particular bhasman or piṣṭikā, are not provided with a name.

Chapter four begins with the description of a mercurial preparation (mahārasa) used in the transmutation of base metals (lohavedha) and in dehavedha; ten varieties of saṃkalā are characterized.[40] The next part is concerned with the preparation of pills (guṭikā) with the following names: vajrāṅgasundarī-,[41] amarasundarī,[42] arkādi-, hemabaddha-,[43] mākṣika-,[44] vyāghrī-, and vaikrāntaguṭikā.[45]

A section on the bandha (solidification) of mercury follows. Types of bandha characterized are: khoṭa-, sajīva-, piṣṭikā-, druti-, saṃkala-, and jalūkābandha. Three sizes of the jalūkā are mentioned: eight aṅguli for women called bāla, ten aṅguli for women called yuvatī, and twelve aṅguli for women called pragalbhā. Four varieties of such a jalūkā are described; they are employed as female aphrodisiacs, to be put into the vagina.[46]

The next part of chapter four deals with prescriptions which suppress ejaculation (vīryastambha) and facilitiate luring women (drāvaṇa). One formula is called kāmāṅkuśarasa.[47] Prescriptions increasing the size of the penis in men and of the breasts in women, etc., are also found in this part of the chapter.

Chapter four proceeds with a section devoted to jāraṇa and other saṃskāras, employed in aurifaction. The *Kakṣapuṭa* and an authority called Nāgabuddhi are mentioned.

The section that follows is very important in presenting the great Siddha Nāgārjuna, expounding his alchemical doctrines on the sacred mountain Śrīśaila to Ratnaghoṣa,[48] who asks for instruction in the arts of aurifaction and rasāyana. Nāgārjuna, complying with this request, relates that these arts were revealed to him by the Vaṭayakṣiṇī, propitiated after twelve years of penance. King Śālivāhana, who dedicated treasures of gold and gems to the Yakṣiṇī, is represented as having approached her too, eager to learn about alchemy.[49]

The Vaṭayakṣiṇī declares that she is going to set forth the methods of aurifaction developed by Māṇḍavya and his pupil Vaśiṣṭha, laid down in the *Vaśiṣṭhamāṇḍavyaśāstra*, a treatise explained to her by her teacher. She transmits Māṇḍavya's views on transmutation, followed by an exposition on rasabandhana.[50]

Ratnaghoṣa appears again on the scene, asking Nāgārjuna questions on rasāyana and dehasiddhi. Nāgārjuna gives an exposition on these subjects;[51] one of the procedures explained is called bhūtakālāntakabandha. Ratnaghoṣa wants to know how dehasiddhi can be attained if one is unable to perform the bhūtakālāntakabandha. Nāgārjuna teaches him an alternative method, called khecarabandha, in which jāraṇa of gems is an essential process. If this bandha is successfully performed, Śiva himself will make his appearance, praising the expert alchemist and promising him a long life in heaven, accompanied by the enjoyment of the daughters of Rudra, Viṣṇu and Brahmā.

The last part of chapter four gives the characteristics of śuddha, baddha, mṛta and mūrchita mercury;[52] the six types of solidified (baddha) mercury are described: khoṭa-, pada-, jalūka-, bhasma-, mūrti- and mūrchitabaddha. The chapter ends with a concise exposition on the saṃskāras.

The general contents of chapters five to eight are known from the references in the short table of chapter one. Chapter five, on the treatment of diseases, is referred to in chapter three.[53] The commentary (ṭippaṇa) on the *Rasendramaṅgala* explains some parts of chapter five, dealing with the treatment of vātavyādhi, atīsāra and kuṣṭha. It probably also mentions the gandhayukti section of chapter six.

The list of apparatus at the end of the Jammu MS of the so-called *Rasaratnākara* of Nāgārjuna[54] actually forms part of the ṭippaṇa on the *Rasendramaṅgala*. This list[55] enumerates the following yantras: śilā-, pāṣāṇā-, bhūdhara-, vaṃśa-, nalikā-,[56]

gajadanta-, dolā-, adhaḥpātana-, bhuvaḥpātana-, pātana-, niyāmaka-, gamana-,[57] tulā-, kacchapa-, cākī-, vālukā-, agnisoma-, gandhakatrāhika-,[58] mūṣā-, kamabhājana-,[59] ghoṇā-[60] guḍābhraka-,[61] nārāyaṇa-, jālikā-,[62] and cāraṇayantra;.[63] a haṇḍikā also forms part of the list.

The *Rasendramaṅgala* is quoted or referred to in the *Bhāvaprakāśa*,[64] Caturbhuja's commentary on the *Rasahṛdaya*, the *Kūpīpakvarasanirmāṇavijñāna*, *Rasakakṣāpuṭa*, *Rasasindhu*, *Rasatattvavivecana*, *Rasayogasāgara*,[65] *Rasendrasambhava*, and Ṭoḍara's *Āyurvedasaukhya*[66].

Some verses of the *Rasendramaṅgala* form also part of the *Rasārṇava*[67] and Vāgbhaṭa's *Rasaratnasamuccaya*.[68]

Formulae from the *Rasendramaṅgala* occur in the *Basavarājīya*,[69] in Kāśīnatha's *Cikitsākramakalpavallī*,[70] Narapati's *Narapatijayacaryā*,[71] the *Rasacaṇḍāṃśu*,[72] *Rasakalpatā*,[73] *Rasakāmadhenu*,[74] *Rasarājasundara*,[75] *Rasaratnākara*,[76] *Rasaratnakaumudī*,[77] *Rasaratnasamuccaya*,[78] *Rasārṇava*,[79] *Rasāvatāra*,[80] *Rasendracintāmaṇi*,[81] *Rasendrakalpadruma*,[82] *Rasendraratnakośa*,[83] *Rasendrasārasaṃgraha*,[84] *Vaidyacintāmaṇi*,[85] and *Yogamahārṇava*.[86]

The author[87]

The *Rasendramaṅgala* mentions Nāgārjuna as its author in one of the introductory verses. The colophons attribute the work to Nāgārjuna too. In spite of this, it appears doubtful that the famous Siddha Nāgārjuna wrote the work, because stories about him are told in chapter four. The *Rasendramaṅgala* was more probably composed by some unknown author in a period in which tales about the colourful personality of the alchemist Nāgārjuna were already current.[88] The *Kakṣapuṭa*, usually ascribed to Nāgārjuna, is mentioned in the *Rasendramaṅgala*. An authority called Nāgabuddhi, known as one of the Rasasiddhas, figures in the treatise as the discoverer of a rasa that transmutes one hundred times its amount of base metal into gold; he is represented as inspired by Buddhist doctrines.[89]

The religion of the author was apparently of a syncretistic type.[90] The introductory verses pay homage to Vardhamāna-Jineśvara and Śiva; the deity Prajñāpāramitā figures in the formula of tīkṣṇamukharasa. Deities of the Hindu pantheon are frequently mentioned: Bhairava, Brahmā, Caturbhuja, Gaṇanātha, Janārdana, Kālī, Pārvatīnātha, Viṣṇu, etc.

The Kāpālikas were known to the author.[91] The *Brahmayāmala* is referred to as the source of the formula called vajrāṅgasundarīvaṭī.[92]

Date

The *Rasendramaṅgala* is often thought to be a very early work, dating from the seventh, eighth or ninth century.[93] Its attribution to Nāgārjuna is rarely put into question.

As already pointed out, it is hardly credible that Nāgārjuna was the author of the work. Its chronological position depends for that reason on internal evidence and quotations from it in later works. The quotations in the *Rasasindhu* prove that the *Rasendramaṅgala* is earlier than the third quarter of the fourteenth century.[94] The upper limit is conditional upon the date of the Nāgārjuna and the king called

Śālivāhana who figure in chapter four, and the stories about these persons.

Atrideva[95] was convinced that the *Rasendramaṅgala* is posterior to the eleventh or twelfth century, because the vālukāyantra was known to its author.[96] This argument can be disregarded, for the list of yantras forms part of the commentary and does not belong to the treatise itself.

Commentary

The commentary (ṭippaṇa) on the *Rasendramaṅgala* consists of short explanations concerning the alchemical procedures described in the text. Many names of plants are elucidated by means of synonyms.

The ṭippaṇa on chapter two contains a list of yantras.[97] The section of chapter four in which Nāgārjuna, Ratnaghoṣa and Śālivāhana figure is not commented upon.

The comments on chapter five have partly been preserved and the section on gandhayukti of chapter six is referred to.

The last three parts of the ṭippaṇa are concerned with subjects which are not listed in the table of contents of chapter one. These parts are about metals, in particular iron (loha), and the use of metallic preparations for rasāyana purposes. The commentator remarks that Nāgārjuna distinguished eighteen kinds of loha, enumerated and discussed by him. The names of these types can be reconstructed by help of a passage from Āḍhamalla's commentary on the *Śārṅgadharasaṃhitā* where they are listed and also said to derive from Nāgārjuna. Their names are: māṇḍūra, māṇḍūka, sāra, madhyasāra, sthūlasāra, cakramarda, bandha, vajraka, surāyasa, kaliṅga, bhadra, garala, sthita, vajra, pāṇḍinirava, arbudaka, kānta, and kuliśa.[98]

The ṭippaṇa on the part describing loharasāyanas mentions the four periods of a man's life: bāla, kumāra, yuvan, sthavira.

The opening lines of the ṭippaṇa state, after a maṅgala, addressed to Śiva, that its author studied the opinions of twenty-seven Siddhas, various sciences, *Nighaṇṭus*, the *Vaidyakatraya*, and the regional names of plants.

The names of the twenty-seven Siddhas are those found in the *Rasaratnasamuccaya*, which is not mentioned as a source.

The name of the author of the commentary remains unknown. A commentary on which no details are available is attributed to Govindacandra.[99]

The *Rasendrapurāṇa*

The *Rasendrapurāṇa* was written by Rāmaprasāda.[100]

Contents

The work consists of 2,655 verses, arranged in thirty chapters (adhyāya). It is written in the form of a dialogue between Śiva as a teacher and Vīrabhadra as his pupil.

Chapter one (126 verses) introduces the subject of the book: rasavidyā; it describes its divine origin (5–30)[101] and praises the wonderful properties of mercury (31–59). The names of mercury are enumerated (60–61), Śiva's abode in the Himālaya is described (62–71), and an account is given of the mythical origin of mercury (72–78).

Five varieties of mercury are distinguished and their properties described (79–88). These five kinds are: rasa, rasendra, sūta, pārada and miśraka.[102]

Chapter two (nānārthavivecanīya; 218 verses) is about technical terms (10–37), weights and measures (38–50), the types of puṭa (51–66), and the yantras (67–218).

Chapter three (pāradasaṃskāravarṇana; 329 verses) begins with the construction of the rasaliṅga and its pūjā. The eight mahādoṣas or naisargikadoṣas and the seven kañcukas are dealt with (6–15). The rasaśālā is described (17–21). The saṃskāras are listed: the series of eighteen (31–32), the eight saṃskāras employed for medicinal purposes (33; quoted from the *Rasapaddhati*), and a less usual series of nineteen (35). The eight saṃskāras which result in a purified mercury, suitable to medicinal use, are described (39–88). The process called anuvāsana is added (89). Mercury is said to be completely purified if one-eighth of the original quantity remains (90). The preparation of mercury from cinnabar is dealt with (91–94), followed by the purification of mercury by means of the taptakhalva (95–96), and the mukhakaraṇa and pakṣacchedana of purified mercury (97–104). Several methods of preparing the form of mercury called candrodaya, a substance used as a drug, are described (120–151).[103] Other subjects of chapter three are kṣetrīkaraṇa (152–156), the preparation of rasasindūra (157–169), the varieties of rasabhasman (170–179), the preparation of rasakarpūra (187–207), the sabīja and nirbīja bandha of mercury (208–209), the twenty-five or twenty-six varieties of bandha (210–249), the sixty-four divyauṣadhis (238–246), gandhakajāraṇā (258–292), and the formulae of a number of pills (guṭikā; 300–328).[104]

Chapter four (pāradamāraṇakriyāvarṇana; 99 verses) gives information on the killing of mercury (1–26); the remaining part of the chapter is devoted to rules about the use of mercurial ashes and the treatment of disorders caused by injudicious use. Chapter five (hiṅgulasindūravarṇana; 48 verses) describes cinnabar (hiṅgula), its purification and killing (1–36ab), as well as sindūra and its purification (36c–48); three varieties of hiṅgula are distinguished: carmāra, śukatuṇḍaka and haṃsapāda (6–7). Chapter six (gandhapāṣāṇavarṇana; 56 verses) is concerned with sulphur (gandhapāṣāṇa), its mythical origin, properties, purification, and medicinal uses.

Chapter seven (gaganavarṇana; 196 verses) is about mica (abhraka = gagana). Subjects dealt with are: the mahārasas (2), the mythical origin of mica (6–10), its varieties and their properties (11–22), the harmful effects of impure mica (25–26), its purification (27–29),the preparation of dhānyābhraka (30–33), ways of killing it (34–87), abhrakabhasman and its amṛtīkaraṇa (98–116), the extraction of abhrakasattva (118–140),[105] its purification (141–142), killing (143–160) and druti (161–176), and finally the uses of mica and its products (180–195).

Chapter eight (haritālaprakaraṇa; 176 verses) describes the mythical origin of haritāla (3), its varieties (4–9), properties (11) and purification (14–21); various ways of killing it (22–146) and several ways of extracting its essence (156–168) are dealt with; the chapter ends with the medicinal uses of haritāla. (169–175). Chapter nine (añjanakāsīsagairikavarṇana; 44 versese) gives an account of añjana (3–21), kāsīsa (22–37) and gairika (38–43), their varieties, purification and sattvapātana.

Chapter ten (uparasavarṇana; 78 verses) is concerned with the uparasas, their varieties, properties, purification and medicinal uses. The extraction of the essence of tuvarī

is described (23), as well as the killing and the extraction of the essence of manaḥśilā (40–45), and the killing of varāṭikā (65).

Chapter eleven to seventeen are devoted to the seven metals (dhātu), their origin, varieties, properties, purification, killing, druti and medicinal uses. Chapter eighteen describes maṇḍūra and chapter nineteen the alloys.

Chapter twenty to twenty-six are concerned with a series of upadhātus, their origin, names, varieties, properties, purification, killing, and medicinal uses. If relevant, the extraction of the sattva is described, and, occasionally, the killing and drāvaṇa of the essence.[106] The upadhātus dealt with are: svarnamākṣika (chapter twenty), tāramākṣika (chapter twenty-one), vimala (chapter twenty-two), tuttha (chapter twenty-three), capala and kaṅkuṣṭha (chapter twenty-four), rasaka (chapter twenty-five), and śilājatu (chapter twenty-six).

Chapter twenty-seven gives an account of the eight sādhāraṇarasas, their names, properties, etc. Chapters twenty-eight and twenty-nine are about the nine ratnas and the uparatnas, their names, varieties, properties, killing, etc. Precious stones dealt with are: vajra (28.35–134), pravāla (28.135–150), mauktika (28.151–183), marakata (28. 184–190), vaidūrya (28.192–196), gomeda (28.197–200), māṇikya (28.201–204), nīla (28.205–212), and puṣparāga (28.213–217). Chapter thirty describes the viṣas and upaviṣas, their names, properties, purification, uses, etc.

Sources are occasionally referred to: *granthāntara* (6.10–12), *Purandararahasya* (3. 255), *Rasadarpaṇa* (25.18), *Rasapaddhati* (3.33; 25.19), *Rasārṇava* (17.7), *Rasasindhu* (3.285–287), and *Ṭoḍarānanda* (25.28).

Authorities mentioned are: Bhāluki (24.19), Caraka (1.11), Hārīta (1.11), Nāgārjuna (3.76; 25.17), Suśruta (1.11), and Vāgbhaṭa (1.11; 24.20).

A large number of the verses of the *Rasendrapurāṇa* may have been composed by the author. Part of the verses have been taken from sources not referred to, for instance, the *Rasasaṃketakalikā*,[107] *Rasaratnasamuccaya*,[108] and *Rasendrasārasaṃgraha*.[109]

The *Rasendrapurāṇa* is quoted in the *Rasendrasambhava*. The author of the latter work often quotes from the *Rasendrapurāṇa* without indicating his source.[110]

Special features

The *Rasendrapurāṇa* is a treatise on iatrochemistry, which explains that it describes the eight saṃskāras which render mercury suitable to medicinal purposes. The other saṃskāras, which are necessary for deha- and lohasiddhi, are not dealt with. The medicinal properties and uses of alchemical products are systematically taken into consideration.

The naisargikadoṣas of mercury are: asahyāgni, cāñcalya, giri, mala, nāga, raṅga (= vaṅga), vahni, and viṣa (3.6); the names of the seven kañcukas are: andhakārī, bhedī, dhvāṅkṣī, drāvī, malakarī, parpaṭī, and pāṭalī (3.10). The list of eighteen saṃskāras comprises svedana, mardana, mūrchana, utthiti, patana, rodha or bodha, niyāmana, saṃdīpana, gaganabhakṣaṇamāna (= abhrakagrāsamāna), saṃcāraṇa, garbhadruti, bāhyadruti, jāraṇā, grāsa, sāraṇa, saṃkrāmaṇa, vedha, and śarīrayoga[111] (3.31–32). A slightly different series of nineteen items is also mentioned; this series adds anuvāsana and replaces grāsa by rañjana (3.35). The forms of mercury called āroṭaka,[112] candrodaya, baddha and mṛta are defined; mercury is designated as āroṭaka

when it is still able to move about (cala), as candrodaya when it has assimilated sulphur; it is baddha when able to withstand the fire,[113] and it is a bhasman or mṛta, when killed (3.38–39). The twenty-five or twenty-six types of bandha are anonymously quoted, probably from the *Rasaratnasamuccaya*; another classification into four types is also recorded: poṭa- or parpaṭikā-, khoṭa- or piṣṭī-, jalaukā- or pakva-, and bhasmabandha (3.250–251).[114] Two types of rasabhasman are described: ūrdhvaga- and talabhasman;[115] rasakarpūra and rasasindūra belong to the former type (3.252–254).

The eight mahārasas are: abhra, vaikrānta, mākṣīka, vimala, adrija, sasyaka, capala and rasaka (7.2). The rasas are: mercury, sulphur, mica, haritāla, añjana, kāsīsa and gairika (7.4).

Haritāla is of two or four varieties; the two varieties are pattrākhya and piṇḍa, the four varieties are piṇḍa, pattra, godanta and vakadāla (8.4–9). Añjana is of two types: yāmuna and kāpota (9.2), or five types: sauvīra, rasāñjana, sroto'ñjana, puṣpāñjana and nīlāñjana (9.4–10); rasāñjana is described as either pītacandananiryāsa or dārvīkvātha (9.6 and 16); kulatthāñjana is added (9.17–18). Kāsīsa is of three varieties: white, śyāma and yellow; the yellow variety is called puṣpakāsīsa or taijika (9.22–24); according to another opinion, kāsīsa is of two varieties, called vālukā- and puṣpakāsīsa (9.25–26). Two varieties of gairika are described: pāṣāṇagairika and svarṇagairika (9.39–40).

The uparasas are: ṭaṅkaṇa (10.7–14), tuvarī (10.16–28),[116] manaḥśilā (10.30–49), śaṅkha (10.51–55),[117] khaṭī (10.56–58), varāṭikā (10.59–68),[118] śukti (10.69–72), śambukā (10.73–74), and sikatā (10.75–77).[119] Three varieties of ṭaṅkaṇa are described: sphāṭikābha, guḍaprabha and pāṇḍura or nīlakaṇṭha, two varieties of tuvarī: sphaṭikā and chillikā or phullatuvarī,[120] three varieties of manaḥśilā: śyāmāṅgī, karavīrikā and dvikhaṇḍākhyā, two varieties of khaṭī: khaṭī and gaurakhaṭī.

The seven metals (dhātu) are gold, silver, copper, tin, zinc, lead and iron (11.1). The chapter on copper includes verses on bhūnāga (13.41–54) and the sattva of mayūrapiccha (the tail feathers of the peacock; 13.54). Two varieties of zinc (yaśada or kharpara) are distinguished: yaśada and śavaka (15.2). Three types of the bhasman of lead are mentioned: harit, vidyudābhāsa and sindūra (16.20–25). Three types of iron are described: muṇḍa, tīkṣṇa and kānta (17.3). Muṇḍa is of three varieties; mṛdu, kuṇḍa and kāṇḍāra, tīkṣṇa of six varieties: kharasāra, hottāla, tāravaṭṭa, viḍa, kālaloha, and gajākhya; kānta is of four varieties: romaka, bhrāmaka, cumbaka and drāvaka, but the *Rasārṇava* is reported to describe a fifth variety, called karṣaṇa (17.4–7). Gajākhyaloha is not described; instead, vajraloha and its ten varieties are mentioned: asita, kāla, lohākhya, rakta, lohita, vajraka, māyūravajraka, tittiravajraka, rohiṇīvajraka, and śukavajraka (17.19–20). Five varieties of romaka are referred to: ekāsya, dvimukha, vedāsya, śaṅkhacakrika, and sarvatomukha (17.24). A type of loha added is called pāṇḍyaloha (17.26). The alloys (miśrakadhātu) described are kāṃsya and pittala (19.2–22), pañcaloha (19.23–25), and vartaloha (19.26).

Two series of upadhātus are enumerated; the first series consists of mākṣika, tutthaka, abhra, nīlāñjana, śilā, ālaka and rasaka, to which vimala is sometimes added as the eighth item; the second series comprises suvarṇamākṣika, tāramākṣika,[121] tuttha, kāṃsya, pittala, sindūra and śilājatu (20.2–3). Vimala is dealt with in one of the chap-

ters (twenty-two) on the upadhātus; three varieties are distinguished: hema-, tāra-, and kāṃsyavimala (22.2–4); its sattva is described as white and resembling candrārka (22.10–13). Two varieties of tuttha are described: sasyaka and kharpara (23.2–4); its sattva is indragopākṛti and the same as copper (23.13–14). Capala is described in one of the chapters on the upadhātus (twenty-four), although some regard it as a mahārasa or uparasa (24.5). The same chapter deals with kaṅkuṣṭha, two varieties of which are distinguished: nalika and reṇuka (24.16–18); Bhāluki is referred to, who considers kaṅkuṣṭha to be an upadhātu of tin (vaṅga) (24.19). The identity of rasaka is discussed (25.1–15); its sattva resembles tin (25.33). The sattva of śilājatu is described as resembling iron (26.53). Soraka is regarded as a variety of śilājatu (26.54–56).

The sādhāraṇarasas are kāmpilla, capala, gaurīpāṣāṇa, narasāraka, kapardī, vahnijāra, girisindūra, and kedāraśṛṅga (27.2–3). Gaurīpāṣāṇa is of two varieties: an artificial variety, white in colour, and a yellow one, occurring naturally (27.8). The chapter on the sādhāraṇarasas also deals with samudraphena (27.40–41), bola (27.42–47)[122] and guggulu (27.48–58); kapardī, girisindūra and kedāraśṛṅga are not discussed.

Nine ratnas are listed: vajra, vidruma, mauktika, marakata, vaidūrya, gomedaka, māṇikya, harinīla, and puṣpadṛṣad (28.5). The ratnas are also divided into four uparatnas and five mahāratnas (28.6). The maṇis consist of vaikrānta, sūryakānta, hīraka, mauktika, candrakānta, rājāvarta, garuḍodgāraka, puṣparāga, mahānīla, padmarāga, pravālaka, vaidūrya and nīla (28.8–9). Rājāvarta, puṣpa, mauktika, vidruma and vaikrānta belong to the group of maṇirasas (28.10). Eight sources (yoni) of pearls are enumerated: śukti, śaṅkha, the elephant, boar (kroḍa), serpent, frog and bamboo (veṇu) (28.151); clouds (megha) are added to this series (28.165–167); pearls from Persia (pārasīkodhava), Arab countries (bārbara) and the West (rūmajasaṃbhava) are described too (28.168).

Uparatnas described are: vaikrānta (29.6–32), sūryakānta (29.38–39), candrakānta (29.40–41), rājāvarta (29.42–51), piroja (29.52–53), and sphāṭika (29.54–58). Seven or eight varieties of vaikrānta are mentioned (29.10–14).

Eighteen kandaviṣas are enumerated and discussed: binduka, cakra, hālāhala, hāridra, harita, kālakūṭa, kardama, markaṭaka, mayūrākhya, musta, puṣkara, saktuka, śaṅkhanābha, śikhī, śṛṅgī, sumaṅgala, vāluka, and vatsanābha (30.11–20). A division into eight saumya and ten ugra poisonous substances is quoted; the eight saumya types are: dāraka, kaurma, mustaka, saikata (= vāluka), saktuka, sārṣapa, śvetaśṛṅgī, and vatsanābha (30.21–24). Lists of thirteen (30.32–33) and nine poisonous substances (30.38) are also cited; the series of thirteen consists of: halāhala, haridraka, kālakūṭa, kardama, karkaṭa, mahāviṣa, mūlaka, mustaka, saktuka, sarṣapa, śṛṅgaka, vāluka, and vatsanābha; the series of nine viṣas comprises brahmaputra, haridra, hālāhala, kālakūṭa, pradīpana, saktuka, saurāṣṭrika, śṛṅgaka, and vatsanābha.[123]

Two series of upaviṣas are enumerated. The first series (30.16) consists of āphūka (= ahiphena), arka, guñjā, hayāri, jaipāla, lāṅgalī, snuhī, unmatta, and viṣamuṣṭika; the second series (30.161–162) is composed of ahiphena, bhallātaka, dhattūra, guñjā, karavīra, khākhasa, lāṅgalī, nirviṣī, and viṣamuṣṭi. Vijayā and sehuṇḍa are also described as upaviṣas (30.184–185).[124]

The sixty-four divyauṣadhis listed (3.238–246) are: somavallī, jalasthapadminī, ajagarī, gonasī, trijaṭā, īśvarī, bhūtakeśinī, kṛṣṇavallī, rudravantī, vārāhī, sarvarā, aśvatthapattrī, amlapattrī, cakranāsā, aśokikā, punnāgapattrā, nāgā, kṣetrikā, śavarī, devīlatā, vajravallī, citrakā, kālaparṇikā, nīlotpalī, rajanī, palāśatilakā, siṃhikā, goṣṭhāṅgī, khadirapattrikā, tṛṇajyotis, raktavallī, brahmadaṇḍī, madhutṛṣā, padmakandā, hemadaṇḍī, vijayā, ajayā, jayā, nalī, śrīnāmnī, kīṭamārī, tumbikā, kaṭutumbī, mayūraśikhā, hemalatā, āsurī, saptaparṇī, gomārī, pītakṣīrikā, vyāghrapādalatā, dhanurvallī, triśūlinī, śṛṅgī, tridaṇḍī, vajravallarī, mahatī, raktakandavatī, bilvadalā, rohiṇī, gorocanā, bilvataṅgī, kandapattrikā, viśalyā, and kandakṣīrā.[125]

The plants, plant products, and other substances belonging to the abhrakamārakagaṇa are: agni (= citraka), agnimantha, ambhakumbhī (= jalakumbhī), anantā, anilāri, ārdrā, aśvagandhā, bhārgī, bhṛṅgarāja, bilva, cow's urine, dāḍima, devadālī, devadāru, dhātrī, dhattūra, dūrvā, goat's blood, guḍūcī, harītakī, indrāyaṇī, kākamācī, kali, kapittha, kāravī, kāsamarda, kaṭu, kharamañjarī, kiṃśuka, koṣātakī, kumārikā, kumbhī, liṅgī, lodhra, maṇḍūkaparṇikā, marīcaka, mīnākṣikā, muni, mūṣakaparṇī, mustā, nāgavallī, nata, the two parṇīs (i.e., śāliparṇī and pṛśniparṇī), pāṭalikā, punarnavā, rambhā, the milky juice of ravi (= arka), śaṅkhapuṣpī, saptaparṇaka, śatāvarī, siddhārthaka, tailaparṇī, tālamūlī, tālīsapattra, tiktā, tinduka, trikaṇṭa, vajrī, vartākinī, the milky juice and the young shoots of vaṭa, vijayā, vṛndā, and vṛṣa (7.88–92).[126]

Some noteworthy names of plants are: āmraharidrā (8.151), gaṅgatiriyā (8.99), huhula (8.131), and pītapuṣpī (8.132).

The author

Rāmaprasāda, born in 1874 or 1875, was a rājavaidya of Paṭiyālā, where he founded an Āyurvedic College. He also wrote the *Āyurvedasūtra* and Hindī translations of the *Carakasaṃhitā* and *Aṣṭāṅgahṛdaya*.[127] Rāmaprasāda was the father of Shiv Sharma.

Date

The first volume of the *Rasendrapurāṇa* was completed in 1926 or 1927.

The *Rasendrasambhava*

The *Rasendrasambhava* by Viśvanātha Dvivedī[128] is a treatise that mainly deals with iatrochemistry.

Contents

The treatise consists of 4,162 verses, arranged in five chapters (prakaraṇa) and a pariśiṣṭa.

Chapter one (paribhāṣyaprakaraṇa; 460 verses) is preceded by a maṅgala and some verses enumerating and praising the originators (pravartakāḥ) of āyurveda; the chapter itself deals with technical terms (paribhāṣā); it lists the components of a large number of groups of substances derived from āyurveda and rasaśāstra; added are the properties of the tastes, rules concerning pharmaceutical preparations, definitions of alchemical terms, descriptions of several types of mūṣā, puṭa and yantra.

Chapter two (śodhanamāraṇādiprakaraṇa; 806 verses) is divided into five sections

(adhikāra). Section one (rasoparasādhikāra; 2.1–230) is concerned with mercury (1–66) and the uparasas: cinnabar (hiṅgula; 70–77), rasakarpūra (78–84), sulphur (gandhaka; 85–91), mica (abhraka; 92–122), manaḥśilā (123–132), haritāla and godantiharitāla (133–160), dugdhapāsāṇa (161–167), kampilla (168–169), tuvarī or sphaṭikā (170–172), ṭaṅkaṇa (173–180), śilājatu (181–195), bola (196–202), saurāṣṭrī (204), khaṭī (205), gairika (206–210), and capala (211–230). The varieties, properties and purification of these substances are described, and, where appropriate, their killing (māraṇa), the extraction of their essences (sattvapātana), etc.

Section two (dhātūpadhātvadhikāra; 2.231–524) gives an account of the seven metals (dhātu): gold (232–252), silver (253–266), copper (267–292), iron (293–334), zinc (335–355), lead (356–371), and tin (372–391), followed by verses on kāṃsya (392–399), pittala (400–406), maṇḍūra (407–417), and the seven upadhātus: mākṣika (425–451), vimala (452–458), tuttha (459–472), kāntapāṣāṇa (473–481), rasaka or kharpara (482–492), añjana (493–497), and kaṅkuṣṭha (498–505); added to the upadhātus are: sindūra (506–509), kāsīsa (510–516), narasāra (517–518), soraka (519–520), agnijāra (521–522), and samudraphena (523–524). The varieties, properties and purification of these substances are discussed, and, where appropriate, their killing, the extraction of their essences, etc.

Section three (ratnoparatnādhikāra; 2.525–630) is about the nine ratnas: vajra (527–547), māṇikya (548–554), puṣparāja (555–558), tārkṣya (559–562), nīla (563–566), vaidūrya (567–570), gomeda (571–574), vaikrānta (575–580), and vidruma (581–593), followed by the uparatnas: sphaṭika (597–599), sūryakānta (600–604), candrakānta (605–607), peroja (608–609), rājāvarta (610–614), raktapāṣāṇa (615–618), vyomāśman (619–622),[129] tṛṇakānta (623–624), kolopala (625–627),[130] and viṣamuktā (628–630). The purification and killing of these precious and semi-precious stones are described, together with their properties.

Section four (mauktikopamauktikādhikāra; 2.631–654) discusses pearls (mauktika; 631–640), and the group called upamauktika (641–654), their varieties, properties, purification, killing, etc.; the upamauktikas are the shells called śukti, śaṅkha and kapardaka.

Section five (viṣopaviṣādhikāra; 2.655–806) deals with poisonous substances of mineral, vegetable and animal origin, their varieties, properties, purification, etc.; the treatment of poisoning by these substances is also described. A poisonous mineral discussed is gaurīpāṣāṇa, also called malla (657–664). The vegetable poisons are divided into viṣas and upaviṣas. The group of nine viṣas consists of halāhala, kālakūṭa, brahmaputra, pradīpana, saurāṣṭrika, haridra, śṛṅgaka, saktuka, and vatsanābha; the eleven upaviṣas are viṣamuṣṭi, unmatta (= dhattūra), agni (= bhallātaka), jaipāla, guñjā, jayā (= bhaṅgā), āphūka (opium), snuhī, arka, hayamāra (= karavīra), and lāṅgalī (665–741). Verses are added about the purification of the seeds of vṛddhadāraka, eraṇḍa, nimbū, dantī, indravaruṇikā, karañja, and a series of other plants and medicinal substances of plant origin (742–757). The remaining part of the chapter is devoted to poisons of animal origin.

Chapter three (rasaprakaraṇa; 1,606 verses) is a collection of rasayogas against the diseases described in the *Mādhavanidāna*; the author added a number of disorders

found in later treatises.

Chapter four (kuppīpakvarasaparpaṭīlauhaprakaraṇa; 619 verses) is divided into five sections (adhikāra), the first three of which deal with kūpīpakvarasas.[131] Section one (rasasindūrādhikāra; 4.1–49) gives an account of the preparation and the properties of a series of sindūras: rasa-, svarṇa-, tāra-, tāmra-, nāga-, vaṅga-, abhra-, tāla-, śilā-, malla-, and viṣasindūra. Section two (makaradhvajādhikāra; 4.50–84) is devoted to the preparation of a number of varieties of makaradhvaja and its medicinal properties. Section three (anyakuppīpakvarasa; 4.85–123) is concerned with the preparation and medicinal uses of candrodaya, kāmadevarasa, anaṅgasundararasa, svarṇavaṅga, and rasakarpūra. Section four (parpaṭikādhikāra; 4.124–224) deals with the preparation and medicinal actions of a number of parpaṭīs: rasa-, pañcāmṛta-, prāṇada-, vijaya-, lauha-, tāmra-, svarṇa-, ratnaparpaṭī, and some preparations of the same type. Section five (lauhaprakaraṇa; 4.225–619) describes a large number of metallic preparations (lauha) against diseases which are arranged in the same way as in chapter three, but with a smaller number of new syndromes added to those of the *Mādhavanidāna*.

Chapter five (sahapānānupānapathyāpathyaprakaraṇa; 622 verses) begins with definitions of sahapāna and anupāna (5.1–11); the whole chapter is devoted to descriptions of these drinks, to be taken together with a drug (sahapāna) or after its ingestion (anupāna).[132] Verses on what is wholesome (pathya) or unwholesome (apathya) in a particular disorder are added.[133] The arrangement of the diseases is the same as in chapter three again. Some verses containing information on the author are appended to chapter five.

The pariśiṣṭa chapter (vaṭīprakaraṇa; 42 verses) contains a number of recipes for pills called vaṭī.

Sources mentioned by the author in the bhūmikā to the edition of his work are: *Bhaiṣajyaratnāvalī*, *Bhāvaprakāśa*, *Bhelasaṃhitā*, *Cakradatta*, Caraka,[134] Dhanvantari, *Gadanigraha*, Harīta, *Rasacaṇḍāṃśu*, *Rasahṛdaya*, *Rasakāmadhenu*, *Rasakautūhala*, *Rasamañjarī*, *Rasarājasundara*, *Rasaratnākara*, *Rasaratnapradīpikā*, *Rasaratnasamuccaya*, *Rasārṇava*, *Rasatantrasāra*, *Rasataraṅgiṇī*,[135] *Rasāyanasāra*, *Rasayogasāgara*, *Rasendramaṅgala*, *Rasendrasārasaṃgraha*,[136] Śārṅgadhara, Suśruta, Vāgbhaṭṭa,[137] Vaṅgasena, *Yogacintāmaṇi*, *Yogaratnākara*, and *Yogataraṅgiṇī*.

Additional sources are the *Rasendracūḍāmaṇi*[138] and *Rasendrapurāṇa*.[139]

Special features

The originators of āyurveda, both the prāṇācāryas and the Rasasiddhas, listed in the introductory verses are: Agasta, Agniveśa, Atri, Bhairava, Bhallukī, Bhāskara, Bhela, Brahmā, Caraka, Dhanvantari, Gahanānanda, Gorakha, Govinda, Kākacaṇḍīśvara, Kapālika, Laṅkeśa, Māṇḍavya, Manthānabhairava, Matta, Nāgabodhi, Nāgārjuna, Nandin, Naravāhana, Narendra, Pāṇina, Ratnakośa, Śambhu, Śaṃkara, Śāraṅgadhara, Suśruta, Svacchandabhairava, Vāgbhaṭṭa, Viśārada, Viṣṇu, Vyāḍi, and Yaśodhana.

Noteworthy yantras described are: kavacīyantra (1.346–348), ṭaṅkayantra (1. 372–373),[140] tejoyantra (1.383–386),[141] jalayantra (1.399–408),[142] gaurīyantra (1. 417–421),[143] bakayantra (1.441),[144] nāḍikāyantra (1.442–446),[145] and kandukayantra (1.454–457ab).

Eight naisargikadoṣas of mercury are enumerated: nāga, vaṅga, vahni, mala, cā-

palya, garala, giri, and asahyāgni (2.3), and seven kañcukas: bhedī, drāvī, malakārī, dhvāṅkṣī, parpaṭikā, andhakārī, and pāṭanikā (2.6). Eight saṃskāras are said to suffice for rasāyana purposes and described: svedana, mardana, mūrchana, utthāpana, the three varieties of pātana, bodhana, niyāmana, and pradīpana (2.17–59). Anuvāsana is not mentioned. Māraṇa (killing) and the properties of bhasman are dealt with in a few verses (2.60–63).

Fifteen uparasas are distinguished, divided into a superior and an inferior group. The ten superior uparasas are: darada (cinnabar), rasendu (= rasakarpūra), gandha (sulphur), abhra (mica), (manaḥ)śilā, tālaka, dugdhapāṣāṇa, kampilla, sphaṭika, and ṭaṅkaṇa; the five inferior uparasas are: śilājatu, bola, saurāṣṭrī, khaṭī, and gairika (2.67–68); capala is either regarded as a mahārasa or an uparasa (2.69).

Rasakarpūra is of two varieties; it is a product of mining (khanija) or made in the workshop (kṛtrima) (2.78). Four varieties of sulphur are mentioned: red, yellow, white and black (2.85). Mica is of four colours: black, yellow, white and red; these types are called vajra, grāhika, tāraka and bhīruka; the vajra type is subdivided into varieties called pināka, dardura, nāga and vajra (2.92–94).

Sixty-four drugs, mostly plants, used in the killing of mica, are listed (2.111–116). The preparation of abhrakasattva is not described. Manaḥśilā is of three varieties: śyāmāṅgī, karavīrikā and dvikhaṇḍā (2.123–125). Four varieties of haritāla are distinguished: piṇḍākhya, pattrasaṃjñika, godanta and vakadāla (2.133). Ṭāṅkaṇa is of three types: sphaṭikābha, guḍaprabha and pāṇḍura; the last type is also known as nīlakaṇṭha (2.173–174). Four kinds of śilājatu are described: suvarṇa-, rājata-, tāmra- and āyasaśilājatu (2.181–183). Bola is of three kinds: rakta, śyāma and manuṣyaja (2.196). Two varieties of gairika are described: pāṣāṇagairika and svarṇagairika (2.206). Capala is of four colours: gaura, śveta, aruṇa and kṛṣṇa (2.211–214).

The three types of iron, muṇḍa, tīkṣṇa and kānta, are mentioned without any subdivision (2.293). Zinc (yaśada) is of two varieties: yaśada and śavaka (2.335). Lead (nāga) is of two kinds: kumāra and samala (2.356). Kāṃsya is of two kinds, called puṣpa and tailaka (2.393–394). Only two kinds of añjana are distinguished: sroto'ñjana and suvīraja (2.493). Two varieties of kaṅkuṣṭha are described: nalikākhya and reṇuka (2.498). Kāsīsa is of two kinds: cūrṇa- and puṣpakāsīsa (2.510).

Noteworthy diseases mentioned in chapters three and five are: āhakajvara (3.203–206; 5.24–25), āmāśayaroga (3.340–341), aṃśughāta (3.1377–1379), aupasargikameha (3.944–946; 5.408), bahumūtra (3.952–974; 4.413–418), gadodvega (3.691–694), granthikajvara (5.22–23), kapharoga (3.846–859), klomaroga (3.977–979), ojomeha (3.947–948), pittaroga (3.860–864), pretajaroga (3.1604–1606), śīrṣāmburoga (3.1373–1376), somaroga (3.1405–1423; 5.615–617), urastoya (3.856–860), and vṛkkaroga (3.975–976).[146]

The author

The author introduces himself in the granthakāraparicaya, appended to chapter five. His name is Viśvanātha Śarman, of a brāhmaṇa Dvivedin family, of Vatsagotra. His parents are Pārvatī Devī and Hanumān, who lived in the village Duvauliyā in the Naravanamaṇḍala, in the vicinity of Kāśī.[147]

Date

The *Rasendrasambhava* was completed in 1952/53.[148]

The *Rasendrasārasaṃgraha*

The *Rasendrasārasaṃgraha* by Gopālakṛṣṇa[149] deals with alchemy in the service of medicine and contains, in particular, a large number of rasayogas against various diseases.

Contents[150]

The treatise consists of 2,167 verses, arranged in five chapters (adhyāya), and is based on earlier works.[151]

Chapter one (386 verses) deals with: the names and characteristics of mercury (7–9), its blemishes (10–12), and its purification (13–18); the taptakhalla (19); the aghoramantra (20);[152] rasanigaḍa (21); the purification of mercury again (22–36); ūrdhvapātana (37–38); adhaḥpātana (39–41); tiryakpātana (42–43); bodhana (44–46); mercury prepared from cinnabar (47–55); mūrchana (56–57); māraṇa (58–61);[153] rasasindūra (62–72); rasakarpūra (73–75); sarvāṅgasundararasa (76–81);[154] kṛṣṇabhasman (82–85);[155] the vajramūṣā (86–88); various groups of substances (89–108); the uses of mercurial products (109–113); the uparasas (114–115), their purification and killing: gandhaka (116–125),[156] vajra (127–134), vaikrānta (135–138),[157] abhraka (139–167),[158] tālaka (168–187),[159] (manaḥ)śilā (188–193), kharpara (194–196), śikhituṇḍa (= tuttha; 197–201), vimala (202–204), (hema)mākṣika (205–213),[160] kāśīśa (214–215), kāntapāṣāṇa (216–219), varāṭa (220–224), añjana (225), hiṅgula (226–231), gairika (235–237), śaṅkha (243–244), bhūnāga, ṭaṅkaṇa (238–242), and śilājatu (232–234); the purification of kaṅkuṣṭha is also dealt with in the verses on the uparasas (235–237); the purification of bhūnāga, although listed as one of the uparasas (114–115), is not discussed; the purification and killing of the metals and alloys (245–357): gold (245–258), silver (259–267), copper (268–278), brass (pittala) and bronze (kāṃsya) (279), lead (280–287), tin (288–295), iron (296–352), maṇḍūra (353–357); the purification and killing of gems (358–364); the purification of the major poisons (viṣa; 365–369),[161] the minor poisons (370–371), and some other substances (jayapāla, snuhīkṣīra, the seeds of vṛddhadāraka, nimbu, rājavṛkṣa, etc.; 372–374 and 378–386); the purification of leeches (375–377).

Chapter two begins with a number of rasas which are effective against many diseases. The remaining part of chapter two, which is very long, consists of forty-nine sections, devoted to the treatment of one or more diseases, mainly with rasayogas.[162] Chapter three contains rasas against children's diseases and chapter four against poisoning. Chapter five is devoted to rasāyana and vājīkaraṇa.

The order of the diseases agrees largely with the *Mādhavanidāna*, except for some additions.

Authorities mentioned in the *Rasendrasārasaṃgraha* are: the author of the *Candrikā* (1.74–75 and 76–81), Caraka,[163] the author of the *Rasamañjarī* (1.74–75), and Nāgārjuna (1.43).

The *Rasendrasārasaṃgraha* is quoted in Āśubodha and Nityabodha Senagupta's commentary on the *Rasaratnasamuccaya*, the *Āyurvedīya Khanijavijñāna*, the *Bhāvaprakāśa*,[164] the *Rasadhātuprakāśa*, Gulrājśarmamiśra's commentary on the *Āyurvedaprakāśa*, Hanumatprasāda Śarmā's commentary on the *Siddhabhaiṣajyamañjūṣā*, Haridattaśāstrin's commentary on the *Rasataraṅgiṇī*, Hariśaraṇānanda's *Kūpīpakvarasanirmāṇavijñāna*, Hazārīlāl Sukul's commentary on the *Rasaratnasamuccaya*, Jñārasarāmaśarman's *Anupānadarpaṇa*, the *Śāligrāmanighaṇṭubhūṣaṇa*, Khare's commentary on the *Rasaratnasamuccaya*, the *Rasajalanidhi*,[165] the *Rasatattvavivecana*, Śivadāsasena's commentary on the *Cakradatta*, Somadevaśarman's commentary on the *Āyurvedaprakāśa*, and Yādavjī Trikamji's *Siddhayogasaṃgraha*. It is one of the sources of the *Bheṣajasaṃhitā*, *Pāradasaṃhitā*, *Rasavidyāmahārṇava*, *Rasayogasāgara*, *Rasendrasambhava*, *Rasoddhāratantra*, and Yādavjī Trikamjī's *Rasāmṛta*.

A number of verses of the *Rasendrasārasaṃgraha* are also found in the *Rasaratnākara*.[166]

The *Rasendrasārasaṃgraha* is especially popular in Bengal.[167]

Special features

The plants belonging to the niyāmakagaṇa are: ākhuparṇī, anantā, balā, brahmadaṇḍī, cakramarda, ghanadhvani, ghaṇṭā, girikarṇikā, gojihvā, jālinī, kākajaṅghā, kākamācī, kañcukī, karañjaka, kokilākṣa, kṛṣṇavarṇatulasī, kṣīriṇī, mahābalā, maṇḍūkaparṇī, matsyākṣī, meṣaśṛṅgikā, mūrvā, nāgabalā, nīlī, padmacāriṇī, pāṭhā, potikā, punarnavā, sahacarā, sahadevī, śaṅkhapuṣpī, śarapuṅkhā, sarpākṣī, śatāvarī, śikhaṇḍinī, siṃhī, tāmalakī, tripuṭī, vanyakarkoṭī, vighaṇṭā, viṣṇukrāntā, and yamaciñcikā (1.89–93).[168]

The plants and substances belonging to the mārakavarga are:[169] ākhuparṇī, arka, asanaka, balā, bhallātaka, bhekaparṇī, cakra, cāṇḍālinī, candrarekhā, citraka, dantikā, devadālī, dhustūra, dūrvā, ghana, girikarṇikā, gokaṇṭaka, gokṣura, guḍūcī, haṃsapadī, hastiśuṇḍikā, the two kinds of haridrā, harītakī, hiṅgu, indravāruṇikā, jāti, jayantī, kākajaṅghā, kākamācikā, kañcukī, kanyā, karkaṭī, kaṭutumbī, kiṃśuka, koṣātakī, lajjā, lākṣā, lāṅgalikā, mahārāṣṭrī, māṇa, mārkava, matsyākṣī, mūrvā, muṣalī, nīpakaṇā, nirguṇḍī, the two kinds of punarnavā, rambhā, ravibhaktā, sahadevī, saindhava, saraṇī, śarapuṅkhā, sarpākṣī, śatāvarī, śigru, somalatā, śuṇṭhī, śvetasarṣapa, tila, tulasī, vacā, vajravallī, vajrī, vandhyā, vārāhī, vargalatā, vāyasatuṇḍī, viṣamuṣṭi, viṣṇukrāntā, vyāghrapadī, and yamaciñcā (1.94–101).

The series of uparasas (1.114–115) is the same as that found in the *Rasaratnākara* (I.5.1–3). The extraction of the essences (sattvapātana) of the uparasas is not discussed. The only añjanas mentioned are nīlāñjana (1.225) and sauvīra (1.235).

The plants comprising the abhrakamārakagaṇa are: ākhuparṇikā, arka, bṛhatī, hilamocikā, madana, maṇḍūkaparṇī, nāgavallī, punarnavā, tagara, taṇḍulīyaka, and tiktā (1.160).

The drugs belonging to the triphalādigaṇa are used in puṭapāka (1.319–322); their names are: auṣadha, bhallātaka, bhekaparṇikā, bhṛṅga, citraka, the leaves of dāḍima, dantī, giriśāntanaka, gojihvā, hastikarṇapalāśa, kanda, kaṭukī, keśarājaka, khaṇḍitakarṇa, krāmaka, kuliśa, kuṭhāra, lohamāraka, māṇa, punarnavā, śataputrī, śṛṅgavera, tālamūlikā, tantra, triphalā, trivṛtā, viḍaṅga, vṛddhadāra, vṛṣapattraka, and

vṛścīra.

The eraṇḍādigaṇa (1.323–324) cures vāta disorders; this group consists of drākṣā, eraṇḍa, ketakī, māṣaparṇinī, mudgaparṇinī, prasāraṇī, śārivā, śirīṣa, and vidārīkanda.

The kirātādigaṇa (1.325) is useful against pitta disorders; it consists of amṛtā, candana, jaṭā, kirāta, kustumburu, nimba, padma, paṭola, śālmalī, śatāvarī, and uḍumbarī.

The śṛṅgaverādigaṇa (1.326–327), effective against kapha disorders, comprises arkaparṇa, kaṇṭakārikā, the two kinds of karañja, the seeds of kuṭaja, mūrvā, nirguṇḍī, paṭola, śirīṣaka, śobhāñjana, the rhizome of śṛṅgavera, and varuṇa.

The gokṣurādigaṇa (1.328), employed against disorders caused by a combination of vāta and kapha, is made up of gokṣura, kṣuraka, the two kinds of siṃhapucchī, sthirā, and vyāghrī.

The paṭolādigaṇa (1.329), which cures disorders caused by a combination of pitta and kapha, consists of aparājitā, indīvara, kahlāra, kāntā, kāsamarda, lodhra, the leaves of paṭola, uśīra, and vārāhī.

The kiṃśukādigaṇa (1.330–331) cures disorders brought about by the three doṣas, if the drugs are prepared by means of puṭapāka; the group is made up of agnimantha, bilva, bṛhatī, kaṇṭakārī, kāśmarī, kiṃśuka, pāṭalā, śālaparṇī, the two types of siṃhapucchī, sthirā, śyonāka, trikaṇṭaka, and viśva.

The śatāvaryādigaṇa (1.332), useful in vājīkarman, consists of balā, bhṛṅgarāja, dhātrī, gokṣura, guḍūcī, kaṇā, kṣura, śatāvarī, vānarī, vidārī, vājigandhā, and vṛddhadāraka.

The vidārīkandādigaṇa (1.333–335), useful for puṭapāka, consists of amṛtakā, bhallāta, bhṛṅgarāja, citraka, karikarṇapalāśa, keśarāja, kṣīrakañcuka, madhuka, muśalī, muṇḍirī, piṇḍāhva, vidārīkanda, and śatāvarī.

Seven upaviṣas are enumerated: ahiphena, arka, dhustūra, guñjā, karavīraka, lāṅgalī, and sehuṇḍa (1.370).

Zinc is not mentioned as one of the metals.

Some unusual names of yantras mentioned are keśayantra (1.373) and raudrayantra (1.374).

Diseases added to those described in the *Mādhavanidāna* are: jvarātīsāra, saṃgrahagrahaṇī (grahaṇī 21), bhasmaka (ajīrṇa 100), śītavāta (vātavyādhi 56), kapharoga, pittaroga, somaroga and mūtrātīsāra,[170] plīhan, agramāṃsa and yakṛt,[171] and snāyuka or tantukākhya.[172] Diseases omitted are vṛddhi, vidradhi, vraṇa, bhagna, and śūkadoṣa. Phiraṅga is not mentioned.

Interesting names of plants are: ākārakarabha (upadaṃśa 24), amlarolī (1.179; ajīrṇa 101), bhaṅga (grahaṇī 23), gandhālikā (sūtikā 28), kālā (amlapitta 24), kālamāriṣa (amlapitta 20), kañcaṭa (grahaṇī 19), khaṇḍakarṇa (grahaṇī 106; kāsa 3; śītapitta 8), manyumaṇī (udāvarta 1), nāgadā (jvara 100), nisindhu (jvara 100), raṇḍā (somaroga 10), and viṣakaṇṭālikā (jvara 100).

A large number of the formulae are ascribed to (semi-)divine and other authorities.[173] Many prescriptions are also found in the *Rasendracintāmaṇi*.[174]

The author

The author mentions his name, Gopālakṛṣṇa, in the introductory verses.[175]

Date

The *Rasendrasārasaṃgraha* is later than the *Rasamañjarī* which is quoted. It would be earlier than the last quarter of the fifteenth century, the period of Śivadāsasena, if this commentator's single quotation from Gopālakṛṣṇa's work would prove to be genuine.[176] The *Rasendrasārasaṃgraha* antedates the *Bhāvaprakāśa* in P.V. Sharma's opinion, who claims[177] that the latter cites the former; this assertion, however, cannot be substantiated. Gopālakṛṣṇa's descriptions of the preparation of rasasindūra (1.62–72) and rasakarpūra (1.73–75) throw doubt on an early dating of the *Rasendrasārasaṃgraha* and may point to the fifteenth or sixteenth century as the period of composition.[178] The quotation from a rasaśāstra author called Mādhava in Gopālakṛṣṇa's auto-commentary even suggests, if the remark derives from the *Āyurvedaprakāśa*, that the work belongs to the eighteenth century.[179]

Commentaries

Commentaries on the *Rasendrasārasaṃgraha*[180] were written by Gopālakṛṣṇa himself, Rāmasena, Jīvānandavidyāsāgara, and Ambikādattaśāstrin.

An unspecified *Rasendrasāravyākhyā* is quoted in Āśubodha and Nityabodha Senagupta's commentary on the *Rasaratnasamuccaya*.

Gopālakṛṣṇa's auto-commentary is called *Bālabodhinī*.[181] Gopālakṛṣṇa gives many details concerning the processes described in his treatise. Vernacular names of inorganic substances and plants are rather often mentioned. The sources of quotations are not specified in most cases.

The introductory verses indicate that a ṭippaṇī, called *Candrikā*, on the *Rasendrasārasaṃgraha* already existed at the time Gopālakṛṣṇa decided to write his auto-commentary.

Authorities and works quoted and referred to are: *Agniveśasaṃhitā* (1.114 = ed. i, 1.232–233), Bhaṭṭa (grahaṇi 14 = ed. i, 65–67; kuṣṭha 11 = ed. i, 26–33), Candrikākāra (jvara 89 = ed. i, 297–300),[182] Hārīta (1.114 = ed. i, 1.232–233), Mādhava (jvara 89 = ed. i, 297–300),[183] *Mṛtyuñjayatantra* (1.120 = ed. i, 1.245–247), *Pātañjala* (1.151 = ed. i, 1.296), *Siddhasāra* (jvarātisāra 1–2 = ed. i, 1–4), Someśvara (jvara 4 = ed. i, 4–15; jvara 73 = ed. i, 219–221),[184] Śrīkaṇṭha (jvara 73 = ed. i, 219–221), and Vāgbhaṭa (1.114 = ed. i, 1.232–233).

The commentator Rāmasena, called Kavīndramaṇi,[185] was the court physician of Mīr Jāfar, the Nawab of Bengal (A.D. 1757–1762); he also commented on the *Rasendracintāmaṇi*. Rāmasena is quoted in Jīvānandavidyāsāgara's commentary.

Jīvānandavidyāsāgara's commentary[186] quotes from and refers to: *Agniveśasaṃhitā* (1.233), *Arthabodhikā* (jvara 340),[187] *Atrisaṃhitā* (1.66, 127, 130), (Govindadāsa's) *Bhaiṣajyaratnāvalī* (śūlaroga 29–34; śitāpitta 8; bālaroga 8; rasāyana 54), Bhānudāsa (pittaroga 3), Bhaṭṭa[188] (grahaṇī 65; ajīrṇa 79; kuṣṭha 47), Bhāvamiśra (1.64), *Bhāvaprakāśa* (kuṣṭha 47), *Cakradatta* (śotha 6), (Śivadāsa's) *Cakradattaṭīkā* (1.232), Candrikākāra (jvara 297), Caraka (unmāda 14), Dīpikākāra (jvara 340), Hārīta (1.233), Mādhava (jvara 297;[189] jvarātīsāra 1),[190] *Mṛtyuñjayatantra* (1.245–247),[191] *Nāgārjunīyasiddhaprayogatantra* (jvara 340–350), Niścala (amlapitta 19–31), *Rājanighaṇṭu* (1. 64 and 245–257), Rāmasena (1.65; śūla 4 and 65), *Siddhasāra* (jvarātīsāra 1–2), Someśvara (jvara 2.4–15 and 219), Śrīkaṇṭha (jvara 219), *ṭīkā* (ślīpada 2), and Vāgbhaṭa (1. 233).

Jīvānanda repeatedly mentions variant readings[192] and vernacular, especially Bengali, names of plants.[193]

Ambikādattaśāstrin's commentary[194] quotes from and refers to: *Bhaiṣajyaratnāvalī* (upadaṃśa 5–21; rasāyana 65–74), *Bhāratānuśāsanika* (1.248), *Bhāvaprakāśa* (1.259, 279, 296, 326–327, 353–354, 372–373; kuṣṭha 47; masūrikā 1), Cakra (yonivyāpad 2), Caraka (gulma 2–3; kuṣṭha 48–57), Jejjaṭācārya (upadaṃśa 1–2), *Kumāratantra* (bālaroga 6–12), *Manusaṃhitā* (1.248), *Mātṛkābhedatantra* (1.248), *prācīnaṭīkā* (ślīpada 1–6), *Rājanighaṇṭu* (1.296, 358), *Rasaratnasamuccaya* (1.126, 129–130, 168, 225, 232, 259, 296, 357, 358), *Rasataraṅgiṇī* (1.49–50, 126, 140–145, 257–258, 353–354, 357, 380–386; ajīrṇa 25–28; rasāyana 75–77), Suśruta (1.365; yakṣman 14–19; yonivyāpad 2), Vāgbhaṭa (1.365; yakṣman 100–107; hikkā-śvāsa 1–2), and *Vāgbhaṭaṭīkā* (pāṇḍuroga 50–52).

The *Rasoddhāratantra* or *Rasasaṃhitā*

The *Rasoddhāratantra* or *Rasasaṃhitā* is an iatrochemical treatise in Hindī prose and Sanskrit verse, composed by Caraṇatīrtha Mahārāja, i.e., Jīvrām Kālidās.[195]

Contents

The work deals with the origin, symptoms and treatment (mainly by means of rasayogas) of diseases.

The *Rasoddhāratantra* is based on the following sources: *Aṣṭāṅgahṛdaya*, *Āyurvedaprakāśa*, *Bhaiṣajyaratnāvalī*, *Bhāvaprakāśa*, *Bṛhannighaṇṭuratnākara*, *Cakradatta*, Caraka, *Gadanigraha*, *Rasakāmadhenu*, *Rasaprakāśasudhākara*, *Rasarājasundara*, (Nityanātha)'s *Rasaratnākara*, *Rasaratnasamuccaya*, *Rasendracintāmaṇi*, *Rasendrasārasaṃgraha*, *Śārṅgadharasaṃhitā*, Suśruta, *Vaidyajīvana*, Vaṅgasena, *Vṛndamādhava*, *Yogaratnākara*, and *Yogataraṅgiṇī*. Additional sources referred to are the *Bṛhadyogataraṅgiṇī* and *Yogaśataka*.

The treatise ends with the bhasmapiṣṭiprakaraṇa of a Sanskrit version of the *Rasoddhāratantra*, accompanied by some comments in Sanskrit.[196] This section is concerned with the preparation and medicinal uses of the bhasman and piṣṭi of the following metals, minerals and other substances: akīka (1–4), abhraka (5–18), abhrakasattva (19–28), kāntapāṣāṇa (29–32), kāntaloha (33–47), kāsīsa (48–51), kāsīsa and godantī (52–54), kukkuṭāṇḍatvac (eggshells; 55–56), kāṃsya (57–62), kharpara (63–66), godantī (67–69),[197] gomeda (70–73), caturvaṅga (74–79),[198] jaharamoharā (80–85),[199] tāmra (86–97), tuttha (98–100), trivaṅga (101–105),[200] tṛṇakāntamaṇi (106–109), nāga (110–115), indranīla (116–129), marakata (130–142), pittala (143–148), puṣparāga (149–157), pañcaloha (158–167), pravāla (168–175), vaṅga (176–181), mayūrapicchā (peacock's feathers; 182–185), gaurīpāṣāṇa (186–

192), māṇikya (193–199), mākṣikasattva (200–204), muktā (205–221), maṇḍūra (222–226), mṛgaśṛṅga (deerhorn; 227–234ab), yaśada (234cd–240), rajata (241–250), loha (251–255), lohābhra (256–259ab),[201] varāṭikā (259cd–265), vajra (266–272), vaikrānta (273–276),[202] vaiḍūrya (277–286), śukti (287–288), śaṅkha (289–294), saptaratna and navaratna (296–310), suvarṇa (311–315), svarṇamākṣika (316–323), saṅgeyaśaba (324–327),[203] sphāṭika (328–332),[204] haritāla (333–334), and hiṅgula (345–349).

Sources quoted or referred to in this section are: *Āyurvedaprakāśa*, *Bṛhadyogataraṅgiṇī*, Govindapādāḥ, *Rasaprakāśasudhākara*, *Rasaratnākara*, *Rasaratnasamuccaya*, *Rasataraṅgiṇī*, and *Yogaratnākara*.

The *Rasopaniṣad*

The *Rasopaniṣad*[205] is an anonymous alchemical treatise that is mainly concerned with the transmutation of base metals into gold and silver by means of processed mercury (lohasiddhi); rasāyana and dehasiddhi are important subjects in the last few chapters.[206]

The *Rasopaniṣad* is composed in the form of a conversation between Śiva and Pārvatī. The work may have formed part of a larger work, called *Mahodadhi*, unless *Mahodadhi* be an alternative title of the *Rasopaniṣad*.[207]

Contents

The *Rasopaniṣad* has been incompletely preserved,[208] as appears from a table of contents found in chapter one (1.20–84), which gives an analysis of the contents of chapters one to eighteen, followed by information on the topics dealt with in chapters twenty-four to thirty; verses on chapters nineteen to twenty-three are missing. The edited part of the treatise consists of about 2,500 verses and some prose.[209]

Chapter one (rasakaraṇabandha; 119 verses) is concerned with śodhana, tejana, pācana, dāśana, cāraṇa, and pātana (which constitute the sixfold rasakarman), nigraha, bandhana, aṅkuśa, pakṣaccheda, agnikarman, rasakriyā, rañjana, krāmaṇa, sāraṇa, pratisāraṇa, and saṃkarabandha.[210]

The subjects of chapter two (rasavṛddhikaraṇa; 42 verses) are bandha and drāvaṇa,[211] those of chapter three (sparśavṛddhikaraṇa; 30 verses)[212] are sattvapātana, aṅkuśabandha, aṅkuśanipātana,[213] and sparśavedhirasa.[214] Chapter four (bījavidhāna; 121 verses) deals with bījas and their uses in rañjana, with groups of substances (varga), and with the dīpikā(yantra).[215] Chapter five (vedhapaṭṭa; 14 verses) is concerned with the paṭṭabandha of mercury by means of jyeṣṭha- and madhyamabīja.[216] Chapter six (lohakaraṇa; 59 verses) discusses the sattvapātana of rasaka (6.3–19) and other substances: mākṣika, vimala, śaila, capala, and sasyaka.[217]

The subjects of chapter seven (rañjanakalkavidhi; 79 verses) are pakṣaccheda, loharañjana (in particular the colouring of lead and tin, which makes them resemble gold), and the preparation of bījas, viḍas, and other substances.[218] Chapter eight (golakavidhāna; 18 verses) describes the preparation of two kinds of golaka (a variety of baddha mercury), used in transmuting other metals into gold.[219] Chapter nine (auṣadhibandhana; 14 verses) is about the bandha of mercury by means of plant juices and about bījarañjana.[220] Chapter ten (nāgasaṃkramaṇa; 13 verses) is about the saṃkramaṇa (i.e., the rañjana and bandha) of mercury by means of nāga and vaṅga,[221] chapter eleven (tārotkarṣavidhāna; 24 verses) about tārotkarṣa (the colouring of silver, which makes it resemble gold) and the six types of kūrpa, which remove impurities.[222] Chapter twelve (śulbārakālikāccheda;[223] 77 verses) is concerned with the removal of the impurities (kālikāccheda) left in copper (śulba) and brass (āra).[224]

Chapter thirteen (vaṅgastambhaśodhana) gives an account of the stambha (i.e., bandha) of mercury by means of vaṅga.[225] Chapter fourteen (śodhanavidhi; 47 verses) describes bhāvana, garbhadruti, guṭikās, etc.[226] The subjects of chapter fifteen (abhrakadrāvakādhikaraṇa; 251 verses) are the drāvaṇa, i.e., druti, of mica, its cāraṇa and jāraṇa, the preparation of surā, viḍas, and the processes called sāraṇa, krāmaṇa and vedha.[227] Chapter sixteen (drāvaṇādhikāra; 289 verses) describes the drāvaṇa of dhātus, upadhātus, ratnas, etc.[228] Chapters seventeen (guhyabandha; 616 verses) and eighteen (rasakaraṇabandhasaṃnyāsavidhāna; 720 verses) are concerned with the making of gold and silver, mercurial preparations for purposes of rasāyana and dehasiddhi, plants useful for particular alchemical operations, etc.[229]

By far the majority of the verses are ślokas. Long metres and an ornate style are found in particular in chapters seventeen and eighteen (17.138–148, 531–535, 593–603; 18.387–413).

The *Rasopaniṣad* refers to earlier works on which it is based (1.14): *Prābhṛta-*, *Vātula-*, *Brāhma-*, *Vaiṣṇava-*, *Aindra-*, *Śāṃkara-*, *Bṛhaspati-* and *Śaukra(mata)*. Authorities mentioned are Māṇḍavya (18.77) and Nāgārjuna (16.10).

The *Rasopaniṣad* is quoted in the *Rasatattvavivecana*. Both *Rasopaniṣad* and *Mahodadhi*, the work on which the former is said to be based, are named in the *Bhūtiprakaraṇa* of the *Gorakṣasaṃhitā*.[230]

Special features

The terminology regarding the saṃskāras differs from what is found in other treatises. Two series are mentioned. The first series consists of six processes (ṣaḍvidha rasakarman): śodhana,[231] tejana,[232] pācana,[233] dāśana,[234] cāraṇa[235] and pātana[236] (1.20cd–21ab). The second series is composed of ten operations: nigraha,[237] bandhana,[238] agnyaṅkuśa,[239] pakṣaccheda,[240] vahnikarman,[241] rasakriyā,[242] rañjana, krāmaṇa, sāraṇa and pratisāraṇa (1.21cd–22). Vedha is absent from the second series, although it is a very important process in the *Rasopaniṣad*.

The impurities of mercury are enumerated in one of the later chapters (15). The kañcukas are referred to in chapter one. Their removal is accomplished by means of the pākāṣṭakavidhi (1.61–63).[243] The fermented fluid called surā or saṃdhāna, used for the pakṣaccheda of mercury, is made with the juice of thirteen plants (1.78–79). The most suitable substance for the bandhana and rañjana of mercury is lead (nāga; 2.1–2). The process called saṃnyāsa is carried out with a substance called mahāviḍa (2.19–22). The preparation of various kinds of kṛṣṭi (used in jāraṇa) is described (2.23–28). The bījas are said to be twenty-four in number (4.1–3).

Many groups of substances are listed in chapter four. Seven mahārasas are distin-

guished: mākṣika, vimala, rasa(ka), vaikrānta, sasyaka, capala and śaila (= śilājatu) (4.4), and seven uparasas: kāsīsa, añjana, kāṅkṣī, haritāla, manaḥśilā, gairika and gandhapāṣāṇa (4.5).[244] Seven metals, called loharasa, are enumerated (4.6);[245] tin and lead are called pūtiloha; bronze (kāṃsa) and brass (āra) are the alloys (saṃkara; 4.7). Deva(loha), vaikṛnta[246] and vajra are grouped together as the mahāsāras; another substance is referred to as rasaloha (4.8). The seven gems (maṇi) are: gomedaka, amṛtāma,[247] śyāmā,[248] añjanamūlaka,[249] lohitākṣa,[250] kūrpa,[251] and jyotīrasa[252] (4. 9–10ab). The seven salts comprise saindhava, romaka, sāmudra, biḍa, cūlikālavaṇa, kṛṣṇasuvarcala and uṣṭrī[253] (4.10cd–11).

An unusual list of forty poisonous substances (viṣa) is found in chapter four, as well as a list of eighty minor poisons (upaviṣa). The forty major poisons (mahāviṣa) are: amṛta, āyudhapātana, bilva, chidrāṅga, citraka, duḥkha, ghora, ghūrṇaka or cūrṇaka, hālāhala, kālāhva, kālakūṭa, kāṇḍa, karkaṭa, kīṭaghna, madavihvala, madhusiddha, maṇḍa- or muṇḍamūla, māraka, markaṭa, māruja, mūlaka, nāgara, nārāca, nirjīva, pāṇḍara, parpaṭa, pauṇḍara, pītamustaka, prāṇavardhana, romanāśana, rudhirasaṃbhavadoṣa, rūkṣa, saktuka, sukṣīra, tamoghnabīja, tīkṣṇa, ugra, vaṭodumbarasaṃkāśa, vatsanābha, and viṣa (4.12–17ab). The eighty minor poisons are: agnimanthaka, ākhumāraka, akṣa, aṅkola, arka, bhallātaka, bilva, brahmasomā, cakramardaka, ciribilvaka, citraka, dhātrī, dvīpā,[254] gandharvavāruṇī,[255] gāṅgeyī, guṇḍī, hastivallī,[256] iṅgudā, kābukī,[257] kākajaṅghikā, kandakī,[258] kaṇika,[259] kāraka,[260] karavīra, karṇika, kaṭuka, kaṭukālābu, kaṭuvetasa, kohala,[261] the two kinds of kośātakī, kuraṇḍa, kuṭaja, lāmbukā, lāṅgalī, lodhra, madanā, madanakodrava,[262] mohanā, nāgāhvā, nicula, nimbakī, niśācarī,[263] palaṇḍuka, palāśa, pāṭhā, pīlu, piṇḍālu, the two kinds of pippalī, priyālu, pūtika, śabara, sahā, śaivala, śāka, śigru, siṃha, śirīṣa, śleṣmātakī, snuhī, śuka,[264] śukanasā,[265] sūraṇa, suvarcalā, svayaṃguptā, syanda, taptasūdana, trivṛtā, unmattā, uttamā,[266] vacā, vajra, vajrakanda, vajravallī, vajrī, vandāka, vāśā, vāyu, and vyāghāta (4.17cd–26ab).

Other groups enumerated are the drāvaṇāṅga (4.26cd–28ab), raktavarga (4.28cd–29), amlagaṇa (4.30–31), bījavarga (4.32–33), surāvarga (4.34), pittavarga (4.39cd–40ab), a second raktavarga (4.40cd–42ab), and the viṣṭhāvarga (43–44). The items belonging to the drāvaṇāṅga are the animals called bheka (a frog), citrāṅga, dvimukhī, indragopaka, ṣaḍbindu, mātṛvāha, maṇḍalī, and gopamaṇḍalī, the plants called kharjū and rāmaṭha, and ṭaṅkaṇa.

Chapter four describes the way to prepare the following substances: mahācūrṇa (4.48–50), nāga-, vaṅga-, tāmra- and māramākṣika, nāga-, vaṅga-, rakta- and mārahāṭaka (4.73–80),[267] dvi-, tri- and caturhāṭaka (4.82);[268] vimala may be used as a substitute of mākṣika (4.94–95) in the preparation of related substances. The mahārasas are described: vimala and mākṣika (4.93cd–95), rasaka (4.96–100ab), sasyaka (4.100cd–108ab), capala (108cd–112ab), and śaila (4.114cd–115ab). Three types of śaila are mentioned (4.114cd–115ab).[269] The number of bījas is said to be one thousand according to some authorities, five hundred according to others; the best among the ācāryas, however, take them to be 210 in number (4.117cd–118ab). The best varieties of rasaka are those found in Ahicchattra and Aihikāpatha (6.4).

Chapter seven describes a kind of gold called caturthasāra (7.55–56), which re-

sembles mātṛkā.[270] The term kūrpa is explained in chapter eleven; kūrpa is said to be sixfold and to consist of dāśana, pāśana, śodhana, mārdava (= mṛdūkaraṇa), bodhana and rañjana (11.12–18). Chapter twelve mentions types of gold called mātṛkottara (12. 25)[271] and hemaṣaṣṭha (12.26).[272] The preparation of alloys of brass and gold is also described (12.59ab and 68ab). Chapter thirteen describes the purification of tin in a mixture of acidic and alkaline fluids.[273]

Chapter fifteen enumerates eight innate (sahaja) mahādoṣas of mercury: kṛṣṇatva (blackness), pakṣikā, sneha, the inability to fuse with (saṃkrama) metals, vepathu (= cañcalatā), sparśasaṃkrānti, bhuktamokṣa (vomiting of the grāsa), and saśabdatā (15. 55–56). It also lists six avasthās of mercury: puṭasaha (able to withstand the heat of puṭa), lepasaha, andhamūṣāsaha (able to withstand the heat in the mūṣā), sāraṇasaha, the absence of loss in weight (kṣaya) after liquefaction (druti), and lohāvarta (15.58–59). The six avasthās during abhrakacāraṇa are: bhrama, bhaṅgasthiti, kampa, jalūkābandha, kākaviṣṭhā, and piṇḍa (15.88);[274] the six doṣas are: pārśvagrāhin, pucchagrāhin, grasita, veṣṭita, mūrchaka, and hiṃsaka (15.89). The characteristics of mercury after jāraṇa of abhraka are: kapila(varṇa), anucara, niḥśabda, anyadarśaka, akṣīṇa, and agnisaha (15.91). The six characteristics of rasājīrṇa are enumerated (15.92). Mercury is said to be baddha when the seven gatis are absent (15.97).[275] The preparation of various types of surā (15.160cd–162 and 238–251) and of a number of viḍas is described (15.198–235).[276]

The best type of mākṣikā is found near (the river) Tāpīyasī[277] (16.1). A process is described, called lakṣmīpatikriyā, which turns silver into gold (16.2–6ab). Another process, which makes copper assume properties of silver, is ascribed to Nāgārjuna (16. 6cd–10). Another process again, transmuting copper into gold, is carried out by help of small pebbles of the size of grains of pepper, which contain gold; these pebbles are found in the neighbourhood of a village called Prīti, situated in Kerala, not far from the coast (16.11–17). Some more methods to make gold by means of these pebbles are added (16.18–27).

Chapter sixteen contains a vaikṛntakalpa (16.28–77ab).[278] Vaikṛntaka is said to be found near the river Vikṛntā,[279] in a country called Valkala.[280] The usefulness of vaikṛnta in a number of alchemical operations is delineated.[281] Seven varieties of vaikṛnta, each variety having a distinct colour (16.78–79ab), are described,[282] together with their uses (16.79cd–100ab). More uses of vaikṛnta are dealt with in the prose passage that follows. This passage also enumerates a series of regions where vaikṛnta is found: Meḍhapāṭa,[283] Svāṭa, Vairāṭanagara, Nepāla, Camūraṅga,[284] Kāśmīra, Āndhradeśa, Śrīparvata,[285] Dramiladeśa, and Karahaṭṭa.[286] The same prose passage deals with devaloha, a mahārasa found near a Śiva temple in the neighbourhood of Rāśina, a village in the Śeṣaṇa region of southern India; this substance comes forth spontaneously from the pātāla (a region under the earth) during thunderstorms in the early raining season and is also found in mines. The verses following upon the prose give an account of the wonderful actions of this devaloha, used for rasāyana and for vedha of all the metals (16.101cd–137ab). The next section of chapter sixteen is concerned with agnijārū,[287] a substance deriving from the jarāyu of marine animals; it resembles devaloha in being sparśavedhin, i.e., it turns base metals into gold or silver by its mere touch. Agnijāru

should not be handled with one's hands, but with an aṅkuśa (hook) only. Five varieties are described, called after five birds: pārāvata, haṃsa, cakravāka, agnika and śuka (16. 137cd–185).[288] The remaining part of the chapter is devoted to druti of the metals.

Chapter seventeen is about guhyabandha, a process to be carried out with the assistance of a suitable woman, selected for this purpose. The characteristics that should be present in this woman and her male partner are described (17.3–9), followed by the guhyabandha, revealed by Umā, who received her knowledge from Īśvara (i.e., Śiva); the product of this complicated process is suitable to aurifaction (17.15–26). The next subject is cāraṇa; the plants employed in this process are listed (17.37–38). The preparation of a pāratīya rasendra, called amṛta, is dealt with; this substance is endowed with a long series of miraculous actions. A mythological story about the appearance of various substances during the churning of the ocean and the ensuing great battle is inserted (17.63cd–74). The proper way of using mercurial products (rasa) and the results obtained[289] are explained (17.75–116). The symptoms of improperly assimilated (ajīrṇa) rasas are given, together with the treatment of this type of disorder (17.117–129), followed by the proper behaviour after the ingestion of mercurial products (17. 130–137). The wonderful effects of rasas are colourfully described in elegant verses in long metres (17.138–148),[290] followed by the preparation of pathyāguḍa and other rasāyanas (17.149–188), and a ritual to be performed (17.189–208).

A large series of plants employed in various alchemical processes, called jaṭharagrāhī or jaṭharagrāhimūlī, is described (17.210cd–240),[291] followed by those called piṇḍagrāhī or mahauṣadhi (17.241–300). These lists are preceded by an agnimantra.

The remaining part of the chapter is filled with processes resulting in the production of artificial gold and silver.

The jaṭharagrāhī and piṇḍagrāhī plants[292] are: ādityavallī (220), agnivṛkṣa (300), ajamārī (300), āmrātakī (228), aṃśumatī (223), bhūśirīṣaka (299), bhūtakeśā (218), brahmadaṇḍa (278), brahmaṇī (294), chattrī (252), citrakapattriṇī (282), deva (254), devaśrī (284), garuḍā (291), gomārī (275, 299), hemalatā (293), jyotiḥkanda (273), jyotirvṛkṣa (273), jyotistṛṇa (273), kesarī 235), khadirapattrikā (276), khadyotoddhūlikā (275), kiṃśuka (226), kīṭamārī (288), kṛṣṇamūlī (219), kumārī (267), kuravakī (300), madhutṛṇa (278), nāginī (282), nārācī (265), naravandī (270), nīlacitraka (262), padmadaṇḍa (278), pītakodravamārī (299), raktapuṣpā (225, 300), śabarakā (253), saptaparṇī (296), sārā (229), sarṣapapattrikā (300), śataparvikā (227), siṃhikā (290), somā (251, śrījayā (280), sthalajapadminī (259), suvarṇadaṇḍa (278), tilakapattrikā (269), triśūlī (299), vajrī (255), vanakustumbarī (300), vārāhī (224), vijayā (281), and yavacarcikā (299).[293]

Chapter eighteen is about the transmutation of various metals into gold and silver. Seventy divyauṣadhis are enumerated (18.81–90), followed by plants called jaṭharagrāhika (18.101cd–111ab)[294] and sparśavedhin (18.111cd–117). Numerous divyauṣadhis, sparśavedhin plants and other ones are described in prose (between 18.117 and 118). The verses which follow mention series of plants which are rañjana (18.136cd–139), pāśana (18.142), dīpana (18.151cd–152), chedana (18.153cd–156ab), etc.

The seventy divyauṣadhis[295] are: adhaḥparṇī, ajamāriṇī, ajananī, ambaṣṭhikā, amṛtā, aṃśumatīśikhā,[296] analadruma,[297] anantā, ardhakeśī,[298] bhogavatī, bhūkadamba, bhūśirīṣakā, calāmadhuk(?), chattrī, daṃṣṭriṇī, dāsīvallī, ghanamustakā, ghaṭābhra, ghoṇasī, gomārī, hutāśanataru, kākapadī, kāminī, kapilā, karavikā, karavīrakā, kumārī, kumudaprabhā, kumudī, kuraṅgī, kuravakī, kustumburu, kvāthinī, lalakambunā, marīcī, meghā, mūlī, nābhilā, nahuṣī, nārāca, naradevā, nīlacitrakā, pauṇḍarīkā, pītakodravamārikā, raktajihvā, raktapuṣpā, rocanā, sahasrāṃśā, samopetā, sarṣapaparṇī, sarvacchedanikā, śatapuṣpī, śatruviśruti, somā, sthalapadminī, suparṇī, suraktā, tālī, tejovatī, tīkṣṇā, tilakapattrikā, tridaṇḍī, triśikhā, triśūlī, udgatā, vajrā, vārā, viṣadharā, viṣaparvikā, and yakṣiṇī (18.81–90).

The jaṭharagrāhika plants[299] are: abhayā, ādityavallikā, amlavetasī, āmrātakī, apāmārgā, apattrā, āpītikā, aṭavī, bhūtakeśinī, brahmaputra, brahmavṛkṣa, cakramardaka, carcikā, devadālī, dhūsarā, dravantikā, ekamūlinī, gaṇḍakī, gaṇḍikā,[300] garuḍī, hastikarṇī, janitrā, jārā, kaṇṭhakālī, kaṭukā, karṇikā, kesarī, ketakī, kovidārā, kṛṣṇavallikā, kṛṣṇaiṅgudā, kuheṭaka, laśunī, mahirā,[301] maṇḍūkapattrikā, mārjārapādī,[302] nāginī, naradevā, netrapuṣpā, nīlāñjalikā, nīlotpala, pañcaviṃśatiparvikā, parājitā, pārijātakī, pāṭalī, pīlu, pīlupattrikā,[303] puṃspattrā, rājakośātakī, rasadūtinī, reṇukā, śabarī, śamī, sārā, śigrukā, śikhā, siṃhilāṅgulikā, śrīdantī, sthalasamaṅgā, sucitriphalā, surabhī, suvarṇapuṣpī, śvānapucchā, śvetagirikarṇikā, tālī, tilakavallikā, trivṛt, vārāhī, viṣavṛkṣakā, viṣṇukrāntā, and viṣyandā (18.101cd–111ab).

The sparśavedhin plants are: amṛtāśanī, bhramarī, bhūmikadambikā, bhūmisaṃkocā, brāhmaṇī, devaśrī, garuḍā, gorocanā, hastimatā, hemalatā, khadyotā, kīṭamārikā, kuravakī, kuravikā, madhutṛṇa, mīnavallikā, mṛgadūrvā, mūrdhnī, nīlā, padmadaṇḍā, pītamustakā, pṛthivī, rohiṇī, śākī, saptaparṇī, sarṣapī, śaśakarṇī, siṃhikā, śiphā, śrījayā, śuṇṭhī, śyāmakā, tāmbūlavallī, vajranārācī, vajriṇī, vāruṇī, vijayā, and vīrā (18.111cd–117).

The divyauṣadhis of the prose section between 18.117 and 118 are: adhaḥparṇī, ajamārī, amṛtā, amṛtāśanī, aṃśumatīśikhā, bhogavatī, bhūmikadambikā, bhūmisaṃkocā, bhūśirīṣikā, chattrā, cilavallī, daṃṣṭriṇī, dāsīvallikā, devaśrī, drumā, ekamūlī, garuḍā, ghanamustakā, ghoṇasī, gomārī, gorocanā, haranetrā, hastimatā, kākapadī, kālī, kapilā, karavīrā, kāśī, khadirā, khadyotā, kīṭamārī, kumārī, kuravakī, kustumburu, mābalā, madhutṛṇa, marīcī, meghāśmanā,[304] mṛgadūrvā, mūlī, mūrdhnī, nāgodarī,[305] nahuṣī, nāśinī, nīlā, nīlacitrakā, padmadaṇḍā, pauṇḍarīkā, pītamustakā, pṛthivī, rādhanā, raktajihvā, raktapuṣpā, rohitā, sahasrāṃśā, śākī, samopetā, saptaparṇī, saralā, sarṣapā, sarvacchedanikā, śatapuṣpikā, śilā, siṃhikā, somā, śrīmūlī, śrīvijayā, sthalapadminī, śuṇṭhī, suparṇī, suraktā, tāmbūlavallī, tejovatī, tīkṣṇā, tiktā, tilakadambakā, tilakapattrikā, tridaṇḍī,[306] triśūlī, udgatā, ūrdhvakeśī,[307] vajrā, vajranārācī,[308] vajriṇī, vārā, vijayā, viṣadharā, viṣaparvā, and yakṣiṇī.

The other plants described in the same section are: abhayā, ādityavallī, amlātakī, amlavetasī, apāmārgā, āpītikā, aruṇī, aśvatthapattrikā, aṭavī, bandhakī, bhūmipāṭalī, brahmaputraka, citrā, deva, devadālī, dhūsarā, dhuśrutā(?), dravantī, ekamūlikā, gaṇḍikā, garuḍī, hastikarṇī, heṭaka, janitrā, jarā, kākamācī, kalinarā, kandakī, karṇikā, kaṭukā, kesarī, keśī, ketakī, kovidārī, kṛṣṇaphala, kṛṣṇavallī, kṛṣṇeṅgudā, laśunī, maharā,[309] nāḍī, nāginī, netravṛkṣā, nīlāñjalikā, nīlotpalā, parājitā, pāriyātakī, pī-

lupattrikā, pīluvṛkṣa, rājakośātakī, rasadūtī, reṇukā, śabarī, śamī, sārā, śataparvan,[310] śikhā, siṃhilāṅgulikā, śrīmatī, sthalasamaṅgā, surabhī, suvarṇapuṣpī, śvānapucchā, śvetagirikarṇikā, trivṛt, vārāhī, vastuvallī, viṣavṛkṣakā, viṣṇukrāntā, and viṣyandī.

Metal ores (18.464–481, mixed with prose) and the extraction of the metals from them are also described.

Some interesting terms employed in the *Rasopaniṣad* are: aravindaka (4.118),[311] ariṣṭaka (12.70),[312] aśmanṛpa (7.26),[313] bhūpa (12.68),[314] campaka (4.118),[315] chidrayantra ((6.9; 16.15 and 198),[316] ghanāṅkuśa (1.108),[317] ghaṇṭaloha (2.42),[318] govāla (12.33),[319] kaṭaśarkara and -śarkarā (2.26; 15.27),[320] mahākhu (13.12),[321] nirvāhikayantra (10.2), prakāśamūṣā (12.8), raktaśulba (12.23),[322] śakalendra (16.25),[323] strīsaṃbhava (4.85),[324] sutīkṣṇa (4.118),[325] utpala (4.118),[326] vaiṣṇava (4.119;[327] 6.43), and vaiṣṇavāstra (15.194).[328]

Human flesh (naramāṃsa: 7.44)[329] and human blood (nararudhira: 6.20 and 14.27; mānuṣa rakta: 16.13) are occasionally used in alchemical operations.

Uncommon names of plants are: adhaḥpuṣpī (15.75),[330] agniparṇī (15.75, 139, 144),[331] bhikṣumārī (17.373), bhūmikurava (7.60), dalottamā (14.22), devī (15.44, 143),[332] dharākurava (9.2),[333] dravamūlī (17.394), gandharvavāruṇī (4.19), godhā (15.103),[334] govandanā (17.38), halā (1.78; 9.2; 15.108),[335] hastivallī (4.20), jalabhāginī (17.37), kābukī (4.21), kadambinī (14.44), kalyāṇī (17.37),[336] kanakabandhanī (7.37),[337] kandalī (1.100; 16.73),[338] kāntā (15.44), karaṭī (1.78), kaṭuvetasa (4.17), kavāṭī (15.100),[339] kuraṭī (14.8 and 22), lohitākṣa (9.12),[340] lohitākṣī (18.33), mahāvṛkṣa (12.63),[341] malaghnī (17.451), mārjāravallī (1.82),[342] muktā (1.79),[343] muktamūlī (1.79), nādeyī (17.451), niśācarī (4.21), piñcholā (17.125), piśācī (14.29),[344] raktāsana (9.2), samudrakārpāsa (15.72), śaśatṛṇa (7.37), setubandhinī (17.37), śiṃśumāra (14.30; 18.26), smarajihvā (15.76),[345] śukā (15.139; 17.38),[346] suputriṇī (1.78),[347] vanyakukkura (1.78),[348] viṣālu (1.78; 13.14), viṣāluka (17.429), viṣaparṇī (12.18), viṣṇuparṇī (17.37 and 373),[349] vṛttaparṇī (15.102),[350] yavacarcī (7.77; 14.16), and yavacarcikā (15.93).

Date

The period of composition of the *Rasopaniṣad* is unknown. Indications pointing to a relatively early age are the similarities as to structure and contents with the *Rasārṇava* and the absence of references to zinc.[351]

Chapter 13
Various works on rasaśāstra and ratnaśāstra

ABHRAKAKALPA: a treatise on the properties and medicinal uses of mica (abhraka), written in A.D. 1679.[1]

ABHRAKALAKṢAṆA.[2]
ABHRAKAMĀRAṆAPRAKĀRA.[3]
ABHRAKASATTVA.[4]
ABHRAKAVIDHI.[5]
ABHRAKAYOGA.[6]
ĀDIMASIDDHĀNTA.[7]

AGASTYASAṂHITĀ by Agastya. A treatise of this title is mentioned as a work on rasaśāstra by P.V. Sharma.[8] An *Agastyasaṃhitā* is also referred to as a treatise on precious stones.[9]

An *Agastimata* is a work on ratnaśāstra.[10] This treatise is the only one known describing a kind of bargaining through hand-signs, called hastasaṃjñā,[11] usual among jewellers in India;[12] this procedure has been recorded by Tavernier, who observed it during his travels.[13] Some assign the *Agastimata* to the late sixth century;[14] L. Finot regarded it as later in date than Buddhabhaṭṭa's *Ratnaparīkṣā* or *Ratnaśāstra*.[15]

The earliest reference to the *Agastimata* is found in Mallinātha's commentary on the *Śiśupālavadha*.[16] The *Agastyamata* was known to Merutuṅga, the author of the *Prabandhacintāmaṇi*.[17]

The *Agastīyaratnaparīkṣā*,[18] an extract from the *Agastimata* in one hundred verses, deals with: vajra and muktā (4–42), māṇikya (43–61), nīla (62–75), marakata (76–81), gomeda (82–86), puṣyarāga (87–89), vaiḍūrya (90–92), lājavarta (93), and pravāla (94–96).

An *Agastyasaṃhitā* forms part of the *Skandapurāṇa*; the Hālāsyamāhātmya of this *Agastyasaṃhitā* contains a chapter (23) on ratnaśāstra; this chapter, consisting of 201 verses, is called navaratnavikriyā.[19]

ĀMAKUṬHĀRACŪRṆAVIDHĀNA.[20]
ĀNANDARASARATNAMĀLĀ.[21]
AṢṬADHĀTUMĀRAṆAVIDHI.[22]
AṢṬADHĀTUPARĪKṢĀ.[23]

AṢṬAMAHĀMĀTRĀ:[24] a medical treatise in eight chapters on the method of preparing eight rasayogas (the eight mātras) and on their uses; a commentary is found at the end of each part. The name of the author and that of the commentator are not mentioned.

The authorities and works quoted or referred to in the commentary are: *Ākara*,[25] Amara, *Ānandakanda*, Bhairavayogin, Ekākṣaranighaṇṭukāra,[26] Lakṣmaṇa, *Nighaṇṭu*, *Rasacintāmaṇi*, *Rasadīpikā*, *Rasahṛdaya*, *Rasakaumudikā*, *Rasamaṅgalā*, *Rasāmṛta*, *Rasaratnasamuccaya*, *Rasārṇava*, *Rasavaiśeṣikanighaṇṭu*, Siddhanātha,[27] *Sūtrasthāna*, and *Vaijayantī*.[28]

AṢṬAMAHĀRASAVARṆANA.[29]
ĀŚVINEYAMAHĀRĀJAMṚGĀṄKARASAVIDHĀNA.[30]
ĀYURVEDARASAŚĀSTRA.[31]
ĀYURVEDARASAŚĀSTRA by Mādhava.[32]

ĀYURVEDĪYA KHANIJA-VIJÑĀNA by Kavirāja Pratāpasiṃha.[33]

This work deals with mercury (rasa) and sulphur (gandhaka); it describes the minerals (khanija) containing these elements; numerous formulae of rasayogas are also found in it.

Sources mentioned in this work are: *Arkaprakāśa*, *Āyurvedaprakāśa*, *Basavarājīya*, *Bhaiṣajyaratnāvalī*,[34] *Bhāvaprakāśa*, *Bṛhadyogataraṅgiṇī*, *Cakradatta*, *Nighaṇṭuratnākara*, *Pāradasaṃhitā*, *Rasacaṇḍāṃśu*, *Rasadarpaṇa*, *Rasakāmadhenu*, *Rasapārijāta*, *Rasarājasundara*, *Rasaratnākara*, *Rasaratnasamuccaya*, *Rasārṇava*, *Rasasārapaddhati*, *Rasataraṅgiṇī*, *Rasāyanasaṃgraha*, *Rasāyanasāra*, *Rasayogasāgara*, *Rasendracintāmaṇi*, *Rasendrasārasaṃgraha*, *Śaivālabhakṣyamata*, *Śārṅgadharasaṃhitā*, *Ṭoḍarānanda*, *Vaidyacintāmaṇi*, *Vaidyajīvana*, *Vaṅgasena*, *Yogacintāmaṇi*, and *Yogaratnākara*.

BANDHASARVASVA by Gorakṣanātha.[35]
BHAIRAVAGUṬIKĀVIDHI.[36]
BHAIRAVAPRASĀDA.[37]
BHAIRAVATANTRA.[38]

BHAIṢAJYASĀRA,[39] *Bhaiṣajyasārāmṛta*,[40] or *Bhaiṣajyasārāmṛtasaṃhitā*,[41] by Upendramiśra. This work was used in the compilation of Dattarāma's *Bṛhadrasarājasundara*,[42] Jñārasarāmaśarman's *Anupānadarpaṇa*, and Hariprapanna's *Rasayogasāgara*.[43]

BHARAṆYAUṢADHA.[44]
BHARAṆYAUṢADHAPRAYOGA.[45]
BHĀRATĪYARASAPADDHATI by Atrideva.[46]
BHASMACIKITSĀ.[47]
BHASMACŪRṆAVIDHĀNA.[48]

BHASMAKAUMUDĪ by Prāṇakṛṣṇa Viśvāsa, son of Rāmahari, grandson of Dayarāma.[49]

BHASMANIRMĀṆAKRAMA.[50]
BHASMANIRŪPAṆA.[51]
BHASMASĀDHANA.[52]
BHASMASINDŪRĀDINIRŪPAṆA.[53]

BHAVĀNĪMATA.[54] This work is quoted or mentioned as a source in the *Rasakakṣāpuṭa*, *Rasarājalakṣmī*, *Rasaratnapradīpa*, *Rasasindhu*, and Ṭoḍara's *Āyurvedasaukhya*.[55]

BHŪNĀGASATTVANIRŪPAṆA.[56]
BHŪNĀGATĀMRAKALPA.[57]
BHŪTABHAIRAVĪ by Jñānabhūpati.[58]
BHŪTABHAIRAVĪRASANIRMĀṆAVICĀRA.[59]

BṚHADRASARĀJASUNDARA by Dattarām Caube.[60]

The treatise consists of three khaṇḍas, the first and third of which are divided into two parts. The first five chapters (adhyāya), forming together the pāradaprakaraṇa of the first half of the first khaṇḍa, deal with mercury and its processing (1–52). The remaining part of the first half of the first khaṇḍa is devoted to gandhaka (52–57), suvarṇa (57–64), raupya (64–68), tāmra (68–74), vaṅga (74–78), jasada (78–80), nāga (80–83), loha (83–93), maṇḍūra (94–95), and miśradhātus (alloys; 95–100).

The second part of the first khaṇḍa is concerned with the upadhātus: suvarṇa- or hemamākṣika (100–107); raupya- or tāramākṣika (107–108); vimala or tāpīja (108–111); tuttha (111–115); capala (115–117); kaṅkuṣṭha, also called kākakuṣṭha, varāṅga and kolavāluka (117–118); rasaka (118–122); sindūra, also called raktareṇu, nāgagarbha and sīsaka (122–123); girisindūra (123); abhraka, also called vajra and gagana (123–143); haritāla (143–159); añjana (159–161); kāsīsa (162–163); gairika (163–164); hiṅgula or darada (164–168); ṭaṅkaṇa and tuvarī (168–170); manaḥśilā (170–172); śaṅkha (172); khaṭī (172–173); varāṭikā or kapardikā (173); muktāśukti (174); śambukā (174); vālu(kā), also called sikatā, śarkarā and retajā (174–175).

The second khaṇḍa discusses śilājatu (175–182), enumerates the sādhāraṇarasas (kampilla, capalagaurīpāṣāṇa, narasāraka, kapardī, vahnijāra, girisindūra, hiṅgula, kedāraśṛṅga), and deals with kampilla (182), gaurīpāṣāṇa or hatacūrṇaka (182–183), navasāra (= narasāraka) or cullikālavaṇa (183), agnijāra (= vahnijāra; 184), samudraphena (184), bola (184), guggulu (185), rasakarpūra (186), the ratnas and uparatnas (186–213), viṣas and upaviṣas (213–227), groups of substances (227–229),[61] weights and measures (229–230), puṭas (230–231), and yantras (231–242).

The first part of the third khaṇḍa consists of rasayogas against the diseases mentioned in the *Mādhavanidāna*. Added are prescriptions against kapharoga (464–466) and pittaroga (466–467) after vātavyādhi, against somaroga (493–494) after prameha, and formulae with a rasāyana and vājīkaraṇa action (536–550).

Sources quoted are: *Bauddhasarvasva* (429), *Bhaiṣajyasārāmṛtasaṃhitā* (255),[62] Bhāluki (117),[63] Bheḍa (384), Bhoja (384), Brahmajyotirmunīndra's *Ratnasāgara* (195–196),[64] Candraṭa's *Yogaratnasamuccaya* (459), Gorakṣanātha (439),[65] *granthāntara* (100, 440), Jñānajyotis (288),[66] *Kākacaṇḍeśvara* (138), *Kaśyapasaṃhitā*

(390),[67] Kṣīrasvāmin (142),[68] *Lakṣmaṇotsava* (330),[69] Mādhava's *Sārakaumudī* (291),[70] Nāgārjuna (118,[71] 182),[72] *Nārāyaṇavilāsa* (397),[73] *Purandararahasya* (36),[74] *Rājarājeśvaracintāmaṇi* (148),[75] *Rasadarpaṇa* (118[76] and 159),[77] *Rasapaddhati* (118–119[78] and 188),[79] *Rasapradīpa* (256 and 323),[80] *Rasarāja* (296),[81] *Rasarājaka* (298),[82] *Rasaratnākara* (388), *Rasaratnasamuccaya* (244, 406, 464), *Rasārṇava* (212[83], 463), *Rasasāgara* (279, 330, 458–459, 487), *Rasasindhu*,[84] *Rasendracintāmaṇi* (256), *Rasendrakalpadruma* (206),[85] *Rasendrapadmakośa* (206),[86] *Rasendrasaṃhitā* (376),[87] Śambhu (235),[88] *Sārasaṃgraha* (384–385),[89] *Sārāvalī* (384),[90] *Śivānubhava* (330),[91] Suṣeṇa (300),[92] *Suśruta* (1), *Ṭoḍarānanda* (121), Vāgbhaṭa (117),[93] *Vāgbhaṭatantra* (1), Vaidyanātha (137),[94] *Vaidyarahasya* (439–440),[95] *Vaidyasāgara* (1), *Vaṅgasena* (395–396), *Vasantarāja* (429),[96] Vṛnda (385–386), *Yogasārāvalī* (458),[97] and *Yogataraṅgiṇī* 463–464).

The *Rasarājasundara* is one of the sources of the *Āyurvedīya Khanijavijñāna*, *Bhāratabhaiṣajyaratnākara*, *Bheṣajasaṃhitā*, *Pāradasaṃhitā*, *Rasayogasāgara*,[98] *Rasendrasambhava*, and *Rasoddhāratantra*.

The *Rasarājasundara* is quoted in the *Kūpīpakvarasanirmāṇavijñāna*, the *Rasatattvavivecana*, Hazārīlāl Sukul's commentary on the *Rasaratnasamuccaya*, Khare's commentary on the *Rasaratnasamuccaya*, and Somadevaśarman's commentary on the *Āyurvedaprakāśa*. Hazārīlāl Sukul also refers to Dattarāma.

The miśradhātus (alloys) described are: two varieties of kāṃsya (puṣpa- and tailakakāṃsya), kaṃsaka, two varieties of pittala (rājarītikā and kākatuṇḍī), pañcaloha, and bharta or vartalohaka.

Vimala is of two varieties: suvarṇa- and rajatavimala, while some add a third kind, called kāṃsyavimala; sasyaka is said to be the same as tuttha; kharpara is a variety of tuttha; the preparation of nāgatāmra is described (113); capala is of four varieties: gaura, śveta, aruṇa and kṛṣṇa; capala is regarded as either a mahārasa or an uparasa (116); kaṅkuṣṭha is of two varieties: nalikā- and reṇukākaṅkuṣṭha; kaṅkuṣṭha is an upadhātu of vaṅga (tin); rasaka is of two varieties: dardura and kāravellaka, but Nāgārjuna distinguishes the varieties called rasaka and kalambuka; the opinions of the authors of the *Rasadarpaṇa* and *Rasapaddhati* are quoted on rasaka and its varieties; abhraka is of four varieties: brāhmaṇa, kṣatriya, vaiśya and śūdra; their colours are white, red, yellow and black respectively; black abhraka is of the usual four varieties; haritāla is of two varieties: pattra- and piṇḍaharitāla, but some distinguish four varieties: piṇḍa, pattra, godanta and vakadāla; añjana is of two kinds: yāmuna and kāpota; sroto'ñjana is of two kinds too: sroto'ñjana sensu stricto, which is black, and sauvīrāñjana, which is white; the *Rasadarpaṇa* distinguishes five varieties of añjana: sauvīrāñjana, rasāñjana, sroto'ñjana, puṣpāñjana and nīlāñjana; kāsīsa is of three varieties: sita, śyāma and pīta; others distinguish two varieties called vāluka and puṣpavāluka; gairika is of two varieties: pāṣāṇa- and svarṇagairika, but some distinguish a third variety; hiṅgula is of three varieties: camāra, śukatuṇḍa and haṃsapāda; ṭaṅkaṇa is of three varieties: sphaṭikābha, guḍaprabha, and pāṇḍura or nīlakaṇṭha; manaḥśilā is of two varieties: manohvā and pīvarī, or of three types called śyāmāṅgī, karavīrikā and dvikhaṇḍā; khaṭī is of two types: khaṭī and gaurakhaṭī; varāṭikā is of three types: white, red and yellow.

Several classifications of śilājatu are mentioned: kāñcana-, raupya-, tāmra-, vaṅga-, nāga-, and lohaśilājatu, gomūtra- and karpūraśilājatu, giri- and ūṣarasaṃbhava; a white variety of śilājatu is called soraka. Bola is of two varieties: rakta and śyāma.

The ratnas and uparatnas are variously classified; the group called maṇirasa consists of rājāvarta, puṣpa(rāga), mauktika, vidruma and vaikrānta (188); the usual kinds of diamonds are described; its five defects are: mala, bindu, yavarekhā and kākapada;[99] the four types of bindu are: āvarta, varta, bhālabindu and yavākṛti;[100] the eight usual sources of pearls (mauktika) are enumerated: the pearl oyster (śukti),[101] the pearl mussel (śaṅkha),[102] the elephant,[103] hog (kroḍa),[104] snake,[105] fish,[106] frog, and bamboo (veṇu);[107] eight varieties of vaikrānta are described.

The viṣas are variously classified into groups consisting of thirteen, eighteen and nine items; two classifications of the upaviṣas are mentioned; the first group consists of snuhī, arka, lāṅgalī, guñjā, hayāri, viṣamuṣṭikā, jepāla, unmatta, and ahiphena (223); the second group is composed of bhallātaka, ativiṣā, four types of khākhasa, two types of karavīra and ahiphena, four types of dhattūra, two types of guñjā, nirviṣī, viṣamuṣṭi, and lāṅgalī; bhaṅgā and sehuṇḍa, left unmentioned in the classifications, are also described (226);

The yantras described are: kavacī-, dolā- or svedana-,[108] garbha-, haṃsapāka-, vidyādhara-, lavaṇa-, ḍamaruka-,[109] somānala-,[110] ūrdhvanalikā- or ṭaṅka-, vālukā-, bhūdhara-, pātāla-, dīpikā-, tejo- or lavaka-, kacchapa-, jāraṇā-, tulā-,[111] jala-, dhūpa-,[112] sthālī-,[113] gaurī-, koṣṭhayantra, vajra- or andhamūṣā, puṭa-, cakra-, pālikā-,[114] iṣṭikā-, koṣṭhikā-, baka-, nāḍikā-, vāruṇī-, tiryakpātana-, kandu-,[115] and vallabhīyantra.

The divyauṣadhis of the *Rasarājasundara* are (34–35): ajagarī, ajayā, amlapattrī, aśokanāmnī, āsurī, aśvatthapattrī, bhūtakeśī, bilvadalā, bilvātaṅkī,[116] brahmadaṇḍī, cakoranāsā, citraka, devīlatā, dhanurvallī, gomārī, gonasī, gorocanā, goṣṭhāṅgī, hemadaṇḍī, hemalatā, īśvarī, jalapadminī, jayā, kaṭutumbī, kālaparṇī, kandakṣīrī, kandapattrikā, khadirapattrī, kīṭamārī, kṛṣṇavallī, kṣetrī, madhutṛṣṇā, mahāvallī, mayūraśikhā, nāganī, nīlotpala, padmakandā, palāśatilakā, patikṣīrā,[117] punnāgapattrikā, rajanī, raktakandavatī, raktavallī, rohiṇī, rudravantī, savarī, saptaparṇī, sarvarā, siṃhikā, somavallī, śṛṅgā, śrīnāmnī, talī, tridaṇḍī, trijaṭā, triśūlī, tṛṇajyotis, tumbikā, vajranāmavallī, vajravallī, vārāhīkanda, vijayā, viśalyā, and vyāghrapādalatā.[118]

The author calls himself in the introductory verse Māthuranandana, a resident of Madhupurī; the Hindī translation adds that his name is Dattarāma. The colophon of chapter one identifies him as Dattarāma, the son of Śrīmāthura Kṛṣṇalāla. A more detailed genealogy is found at the end of the verses on the miśradhātus; the author, Dattarāma, informs the reader that he is a brāhmaṇa of Māthuravaṃśa, son of Kṛṣṇalāla (Kanhaiyālāl), who was the son of Haricandra, one of the three sons of Ghāsīrāma.

Dattarāma belongs to the twentieth century.[119]

BṚHATSAṂHITĀ by Varāhamihira. This treatise contains four chapters on ratnaparīkṣā.[120] Chapter 79 deals, after a short introduction (1–3) and a list of precious and semi-precious stones (4–5), with the diamond (vajra; 6–18); chapter 80 (36 verses) is devoted to the pearl (muktāphala), chapter 81 (11 verses) to the ruby (padmarāga), and chapter

82 (one verse) to the emerald (marakata).[121]

The stones enumerated (79.4–5) are: vajra, indranīla,[122] marakata, karketara, padmarāga, rudhirākhya, vaidūrya, pulaka,[123] vimalaka,[124] rājamaṇi,[125] sphaṭika, śaśikānta (= candrakānta), saugandhika,[126] gomedaka, śaṅkha, mahānīla,[127] puṣparāga, brahmamaṇi,[128] jyotīrasa,[129] sasyaka,[130] muktā, and pravāla.[131]

CANDRASENASIDDHĀNTA.[132] Candrasena, who is also credited with the *Rasacandrodaya*, is a Rasasiddha.[133]

Candrasena is quoted in the *Yogaratnākara*. The *Rasajalanidhi* attributes to him a description of puṣparāga[134] and a particular method of killing diamonds.[135]

CARPAṬĪSIDDHĀNTA.[136] Carpaṭa, Carpaṭi, Carpaṭī(nātha), or Carvaṭi is mentioned in Jinadattasūri's *Suvarṇaraupyasiddhiśāstra*,[137] the *Rasakakṣāpuṭa*, the *Varṇaratnākara*,[138] and the *Vāsudevānubhava*.

He is quoted in the *Āyurvedasaukhya*,[139] *Lohasarvasva*,[140] *Yogaratnākara*,[141] and *Yogataraṅgiṇī*.[142]

Some texts refer to him as a Rasasiddha.[143] Svātmārāma calls Carpaṭi one of the Mahāsiddhas.[144]

Some regard Carpaṭī as one of the pupils of Gorakṣanātha,[145] others mention Vyāḍi as his teacher.[146] The Tibetan tradition sees in him the guru of Mīna Pā,[147] i.e., Mīnanātha or Matsyendranātha.[148] Carpaṭī is the twenty-fourth[149] or fifty-ninth[150] of the eighty-four Siddhas.[151] King Sāhila of the Chamba state, who lived in the tenth century, is said to have held Carpaṭi in high esteem.[152]

The *Śābaratantra* refers to Carpaṭanātha as one of the pupils of the twelve Kāpālika teachers.[153] A Hindī text called *Prāṇasaṅgalī* contains an improbable report about a conversation between Guru Nānak[154] and Carpaṭi.[155]

Works attributed to Carpaṭi, apart from the *Carpaṭīsiddhānta*, are the *Carpaṭaśataka*[156] and *Rasacandrodaya*.[157]

Carpaṭi[158] is assigned to the eleventh,[159] twelfth or thirteenth century.[160]

CIKITSĀRATNĀBHARAṆA by Sadānanda Dādhīca.[161] This work is one of the sources of Haripranna's *Rasayogasāgara*[162] and Hariśaraṇānanda's *Kūpīpakvarasanirmāṇavijñāna*. Syphilis (phiraṅga) is mentioned in it.[163]

CIKITSĀ(SĀRA)RAHASYA by Hārīta Muni.[164] This work is one of the sources of Haripranna's *Rasayogasāgara*. Hārītamuni is quoted in Nityanātha's *Rasaratnākara*.

CINTĀMAṆIRASAVIDHĀNA.[165]
DATTĀTREYASAṂHITĀ by Dattātreya.[166]

DEVĪŚĀSTRA.[167] This work is quoted or mentioned in Āśubodha and Nityabodha Senagupta's commentary on the *Rasaratnasamuccaya*, the *Bhāratabhaiṣajyaratnākara*,[168] Hazārīlāl Sukul's commentary on the *Rasaratnasamuccaya*, the *Basavarājīya*, *Rasaprakāśasudhākara*, *Rasaratnasamuccaya*, and *Rasayogasāgara*.[169]

The *Devīśāstra* is sometimes considered to be the same as the *Rasārṇava*.[170]

DEVĪYĀMALA.[171] Quoted in one of the pariśiṣṭas of the *Ānandakanda*,[172] the *Kūpīpakvarasanirmāṇavijñāna*, and the *Rasakāmadhenu*. A *Devayāmalaka* is quoted in Gulrājśarmamiśra's commentary on the *Āyurvedaprakāśa*.

DHARAṆĪDHARASAṂHITĀ[173] by Dharaṇīdhara, son of Jvālānanda.[174] This work is profusely quoted in the *Pāradasaṃhitā*. Quotations also occur in Hazārīlāl Sukul's commentary on the *Rasaratnasamuccaya* and in the *Kūpīpakvarasanirmāṇavijñāna*.

The *Dharaṇīdharasaṃhitā* lists the following divyauṣadhis: agnikarṇikā, ākhuparṇikā, amṛtākanda, apāmārga, aparājitā, bhūkadamba, brahmadaṇḍī, bṛhatī, cakramarda, citraka, daṇḍī, dhattūra, dūrvā, gojihvā, grīṣmasundarā, haridrā, hastiśuṇḍī, iṣupuṅkhikā, īśvarī, jātī, jayantī, kākajaṅghā, kākamācī, kañcukī, kaṭutumbikā, kośātakī, kṛṣṇasārivā, kṣīriṇī, kumārikā, kusumbhaka, lajjālu, lakṣmaṇā, lāṅgalī, mahārāṣṭrī, maṇḍūkaparṇī, mīnākṣī, mṛgadūrvā, nīrakaṇā, nirguṇḍī, pātālī, raktālu, rambhā, rasāṅkuśā, sairīya, śaṅkhapuṣpikā, sarpākṣī, śatāvarī, śigru, śikhiśikhā, śimbikā, śrīdevī, suradārikā, sūryāvarta, śvetārka, tilaparṇikā, tulasī, utpala, vajrakandā, vajralatā, vandhyā, vārāhī, varṣābhū, vidārī, and vṛddhī.[175]

Works quoted in it are the *Rasahṛdaya* and *Rasaprakāśasudhākara*.[176]

The acquaintance of the author with the *Rasaprakāśasudhākara* implies that he cannot be earlier than the sixteenth century.

DHĀTUJÑĀNA.[177]
DHĀTUKALPA.[178]
DHĀTUKALPARĀJA.[179]
DHĀTUKAUTUKA.[180]

DHĀTUKRIYĀ[181] or *Dhātumañjarī*[182] by Bhairavānandayogin.[183] This work forms part of the *Rudrayāmala*, is in the form of a dialogue between Mahādeva (i.e., Śiva) and Pārvatī, and deals with alchemy, not with iatrochemistry.

Many synonyms of the metals occur in this text. Zinc is designated by the terms jāsattva, jarātīta, rājata, yaśadāyaka, rūpyabhrātar, varīya, troṭaka, carmaka, kharpara, rasaka, rasavardhaka, etc.[184]

The upadhātus mentioned, together with their synonyms, are: haritāla, manaḥśilā, abhraka, and somala or malla.[185] Other substances mentioned, together with their synonyms, are: muktā (pearl), vidruma (coral), kūrmapṛṣṭha (tortoiseshell), śaṅkha, śuktikā, gajadanta (ivory), śikhipiccha (peacock's feathers), nakha and keśa (nails and hair).[186]

Many geographical names appear in the verses devoted to the places where various substances are found.[187] Some of these names are: Gautamādri (149), Gayādri (149),[188] Kāmarūpa (141; 144),[189] Kāmboja (146), Kedāra (148),[190] Kumbhādri (146), Laṅkā (121),[191] Līhādri (149), Malādri (144), Mlecchadeśa (144), Nalādri (149), Nepāla (144; 147),[192] Niṣkala (149), Pāvakādri (145), Sindhudeśa (141), Tripura (148), and Tryambaka (148; 150).[193]

Various operations resulting in the production of artificial gold and silver are described, as well as several procedures to make substances which resemble these no-

ble metals. The accumulation of wealth (dhanasampatti) is an important subject in this treatise.

Among the foreign countries, mentioned in the verses on the origin of copper and zinc, figure Rūmadeśa and Phiraṅgaka,[194] which, together with the mention of phiraṅgaroga, indicates that this work is posterior to the sixteenth century.[195]

A Bhairavānanda, who need not be the author of the *Dhātukriyā*, is mentioned in the *Bhāvaprakāśa*,[196] *Bheṣajasaṃhitā*,[197] *Bṛhadyogataraṅgiṇī*,[198] *Rasasaṃketakalikā*,[199] and *Rasayogasāgara*.[200]

Bhairavānandayogin is referred to in the *Rasakāmadhenu*[201] and *Rasaratnasamuccaya*.[202]

A master magician called Bheravāṇanda (= Bhairavānanda) figures in Rājaśekhara's *Karpūramañjarī*.[203]

DHĀTUMAÑJARĪ, anonymous.[204]
DHĀTUMAÑJARĪ by Sadāśiva.[205]
DHĀTULAKṢAṆA, ascribed to Nārada.[206]
DHĀTUMĀRAṆA.[207]
DHĀTUNIDĀNA.[208]
DHĀTUPADDHATI.[209]
DHĀTŪPADHĀTUBHASMAKRIYĀ.[210]
DHĀTUPARĪKṢĀ.[211]
DHĀTUPRAKARAṆA.[212]
DHĀTURASĀYANA.[213]
DHĀTURATNAMĀLĀ, anonymous.[214]

DHĀTURATNAMĀLĀ by Devadatta, son of Hari.[215] This text is sometimes regarded as forming part of the *Aśvinīkumārasaṃhitā*.[216] It describes in 184 verses the characteristics (lakṣaṇa), purification, killing, and medicinal properties (guṇa) of the dhātus and upadhātus.[217] The substances dealt with are: raupya, hema, tāmra, nāga, vaṅga, ayas or loha, kharpara,[218] abhraka, mauktika,[219] pravāla, tālaka, śilā, mākṣika, gandhaka, sūta (mercury), and hīraka.

Noteworthy is the distinction of four types of loha (58–59ab: brāhma = vāḍava, kṣatriya, vaiśya = kāntaloha, śūdra = maṇḍūra), two types of kharpara (81: jasada = zinc, and sattvaka), three types of abhraka (89: nāga, vajra, dardura),[220] two types of mauktika (113: sāmudra and hastikumbhaka), and two types of gandhaka (136: guṇika and amlasāraka).

A vernacular term used by the author is sera.[221] Noteworthy names of plants are gajavāruṇī (151), kalajātikā (153), tilvaṇī (152), and sārapuṣpā (152).

The *Dhāturatnamālā* is one of the sources of the *Pāradasaṃhitā*, which quotes it.

The treatise is assigned to the fourteenth,[222] sixteenth,[223] eighteenth,[224] or nineteenth century.[225] One of the MSS[226] dates, however, from A.D. 1660/61.

DHĀTURATNĀVALĪ.[227]
DHĀTURATNĀVALĪ by Siddhadeva.[228]

DHĀTUŚODHANA.[229]
DHĀTUŚODHANA or *Candracakorikā*.[230]
DHĀTUŚODHANA by Mallinātha.[231]
DHĀTUŚODHANAMĀRAṆAVIDHI.[232]
DHĀTUŚODHANAPRAKRIYĀ.[233]
DHĀTUŚUDDHI.[234]

DHĀTUŚUDDHIPRAKARAṆA:[235] a work dealing with the purification of various substances in order to make them suitable to be used in medicinal preparations.[236]

DHĀTŪTPATTI by Ṭhakkura Pherū.[237] This treatise, written in Prakrit, consists of fifty-seven verses. The subjects are: pittali or pittala (6–7); tambaya (= tāmra; 8–10); sīsaya (= sīsa; 11–13); raṅgaya (= raṅga; 14); kaṃsa(ya) (= kāṃsya; 15); pārada (16–19); hiṅgulaya (= hiṅgula; 20–22); sindūra (23–27); the worship of dakṣiṇāvartaśaṅkha,[238] rudrākṣa and śāligrāma (28–44); karpūra (45–46); agara (= aguru; 47–50); candana (51–54); mṛganābhi (musk; 55); kuṅkuma (56); dhūpas (perfumes; 57).

Amber (kaharavva) was known to Ṭhakkura Pherū.[239]

The *Dhātūtpatti* may be an extract from Ṭhakkura Pherū's *Bhūgarbhaprakāśa*, a work on mining and metallurgy.[240]

DHĀTUVĀDA.[241]

DHĀTUVĀDA(-UPADEŚA)[242] by Na-li.[243] This short treatise, lost in the original Sanskrit, was translated into Tibetan under the title of *Gser-ḫgyur-gyi rći(-ḫi gdams-pa)*.[244] It forms part of the Rgyud-ḫgrel (Tantravṛtti) section of the Tanjur.

The *Dhātuvāda*[245] describes in fourteen verses methods to transmute base metals into gold. One of the substances employed is mahāmāṃsa (śa-chen).[246] Kuṣṭha (ru-rta), which grows in the Himālaya, is depicted as a plant from the leaves of which drips a fluid having the colour of gold.

DHĀTUVĀDAPRAKARAṆA by Soma. This is a treatise in Prakrit, consisting of twenty-five verses, forming an appendix to Soma's *Ratnaparīkṣā*, and giving an account of the transmutation of copper into gold. It may date from the fourteenth century.[247]

DIVYARASENDRASĀRA by Dattātreya.[248]
DIVYARASENDRASĀRA by Dhanapati.[249]
DIVYAUṢADHĪKALPA.[250]
DIVYAUṢADHIPRAKARAṆA.[251]
DIVYAUṢADHYADHIKĀRA by Govindācārya.[252]
DVĀDAŚĀRTHANIRŪPAṆA by Bāhaṭācārya.[253]
GANDHAKABHṚṄGARĀJAKALPA.[254]

GANDHAKAKALPA:[255] said to form part of chapter twenty-eight of the *Rudrayāmala*,[256] and to deal with the medical properties of sulphur and the preparation of

medicines from it;[257] it is one of the sources of the *Pāradasaṃhitā*.

GANDHAKAKALPĀDISAṂGRAHA.[258]
GANDHAKALPA.[259]
GANDHAKARASĀYANA.[260]
GANDHAKASATTVA.[261]
GANDHAKAVARJYATĀNIRṆAYA.[262]
GAṄGĀDHARARASAVIDHI.[263]

GAURĪKĀÑCALIKĀTANTRA.[264]

This treatise, in the form of a dialogue between Īśvara and Devī,[265] consists of 355 verses.[266] Subjects dealt with are:[267] kālajñāna (24–79); ṛtubheda (81–87);[268] citrakalpa (88–92);[269] maṇḍūkaparṇīkalpa (93–95);[270] punarnavākalpa (96–100);[271] nirguṇḍīkalpa (101–120);[272] hastikarṇakalpa (121–137);[273] śvetārkakalpa (138–150);[274] bhṛṅgarājakalpa (151–154);[275] kāchalākalpa (155);[276] amlalonīkalpa (156–157);[277] śālmalīkalpa (158–167); abhayākalpa (168–172); the treatment[278] of jvara (180–200), bahumūtra (201–202), mūtrakṛcchra (203–205), bindu(srāva)kṣaya (a deficient amount of ejaculated semen; 206–209), kuraṇḍa and galagaṇḍa (210–214), bhagandara (215), kāmalā (216), vaivarṇya (217),[279] kāsa and śvāsa (218–220), yakṣman and kṣaya (221–223), nāsāraktasrava (nosebleeds; 224), arśas (225–226), karṇaśūla (227–229), netraroga (230–233), śiroroga (234–235), dantaroga (237–239), atīsāra (240–242), śūla (243–246),[280] vicarcikā (247), kuṣṭha (248–254), plīharoga (255), visphoṭaka (256–257), arbuda (258), agnidagdhavraṇa (259–260), ślīpada (261–263), nidrākṣaya (insomnia; 264–266), and nidrā (267–271); adṛśya (making oneself invisible; 272–275); nidhidarśana (the discovery of hidden treasures; 276–277); dehadurgandha (the removal of a bad bodily smell), kānti, puṣṭi, etc. (283–290); vaśīkaraṇa, mohana, vājīkaraṇa, stambhana, etc. (309–355).

The *Gaurīkañcālikātantra* is quoted in Jñārasarāmaśarman's *Anupānadarpaṇa*.

The treatise is sometimes said to belong to the sixteenth century.[281]

GOVINDASIDDHĀNTA.[282]
GUṬIKĀRASACIKITSĀ.[283]
HARĪSIDDHĀNTA.[284]
HARĪŚVARATANTRA.[285]
HIṄGULAPRAKARAṆA by Vinayasāgara Upādhyāya.[286]
JĀRAṆAMĀRAṆĀDI.[287]
JVARANIVĀRAṆABHASMAVIDHĀNA.[288]
JVARĀṄKUŚASAṂJĪVANARASĀDI.[289]
JVARĀṄKUŚAVIDHĀNA.[290]
KĀDAMBAKAKALPA by Īśvara.[291]

KAILĀSAKĀRAKA: a work in the form of a dialogue between Śiva and Pārvatī, dealing with the purification of mercury and its uses in medicinal preparations.[292]

KALPADRUMASĀRASAṂGRAHA by Jayarāmagiri, pupil of Caitanyagiri: a work on mercurial preparations in a mixture of Sanskrit and Hindī.[293]

KĀMADHENUTANTRA.[294]
KANAKASINDŪRARASAVIDHI.[295]

KĀPĀLIKATANTRA.[296] Kāpālika is mentioned as one of the Rasasiddhas in Caturbhuja's commentary on the *Rasahṛdaya* (1.7), the *Pāradasaṃhitā* (1.98), *Rasaratnākara*,[297] *Rasaratnasamuccaya* (1.4; 6.52), and *Rasataraṅgiṇī* (1.29–32); he is a Mahāsiddha in Svātmārāma's *Haṭhayogapradīpikā* (1.8).[298] One of the sixty-four Siddhas, Kāhnūpāda or Kṛṣṇapāda, pupil of Jālandharanātha, called himself Kāpālika.[299]

Kāpālikayogas are repeatedly described in the *Rasārṇava*.

KĀPĀLĪSIDDHĀNTA.[300] Kāpāli(n) is mentioned in the *Ratnākarauṣadhayogagrantha*, Revaṇasiddha's *Vīrabhaṭṭīya*, the *Sarvadarśanasaṃgraha*, and the *Vaidyaśāstrapravartakācāryanāmasamuccaya*. Kapālin forms part of the group of Rasasiddhas in Caturbhuja's commentary on the *Rasahṛdaya* (1.7), the *Pāradasaṃhitā* (1.96) and the *Rasaratnasamuccaya* (1.2); he is one of the Mahāsiddhas in Svātmārāma's *Haṭhayogapradīpikā* (1.7). Kāpāli is a Rasasiddha in the *Raseśvarasiddhānta*.[301] Kapālin is credited with the *Rasarājamahodadhi*.

Kapālin, Kāpālin, Kāpāli and Kāpālika may designate one and the same person.[302]

G. Hāldār regards Kāpāli as a Śaka king, who was the son of Vāsudeva and teacher of Kandalāyana;[303] he places him in the second or third century.[304]

KHAṆḌASIDDHĀNTA.[305] Khaṇḍa is one of the Rasasiddhas in the *Pāradasaṃhitā*, *Rasajalanidhi*, *Rasaratnākara*, and *Rasaratnasamuccaya*. Caturbhuja's commentary on the *Rasahṛdaya* (1.7) mentions Khaṇḍin instead of Khaṇḍa as a Rasasiddha. The *Haṭhayogapradīpikā* (1.8) refers to Khaṇḍa as one of the Mahāsiddhas.

KHECARĪVIDYĀ, ascribed to Ādinātha.[306] This small treatise in four chapters and 285 verses begins with praising itself (1.1–28), followed by an account of the khecarīmantra (1.29–40); the remaining part of chapter one is devoted to the preparations for and practice of the khecarīmudrā (1.41–74).[307] Chapter two, the longest, describes the siddhis, the subtle body, the cakras, etc.; a portion of this chapter (2.81–97) deals with the effects of Haṭhayoga practices on the doṣas. Chapter three discusses the raising of the Kuṇḍalinī, her union with Śiva, and the realization by the practitioner of bodily liberation. Chapter four is about divine herbs (divyauṣadhi), necessary for the attainment of siddhis, and on the consumption of mercury, sulphur, realgar and orpiment.

The *Khecarīvidyā* calls itself in its colophons a portion of a treatise called *Mahākālayogaśāstra*.[308] A work of this title is referred to by two mediaeval commentators[309] as concerned with Haṭhayoga. The *Khecarīvidyā* itself is cited by works called *Mahākāla* and *Mārtaṇḍaviveka*. The latter is the *Yogamārtaṇḍa* or *Vivekamārtaṇḍa* of Gorakṣanātha; the former, if not the *Mahākālayogaśāstra* itself, may be the *Mahākālasaṃhitā*, at-

tributed to Ādinātha.[310]

The first chapter of the *Khecarīvidyā* is often reproduced as the second chapter of the *Yogakuṇḍalyupaniṣad.*[311]

Since three verses of the *Khecarīvidyā* are reproduced in the fifteenth-century *Haṭhayogapradīpikā* of Svātmarāma, the former may date from the fourteenth century.

KRAVYĀDIRASANIRMĀṆAVIDHI.[312]
KṚTRIMARASAYOGAVICĀRA.[313]

KUBJIKĀMATATANTRA.[314] This Tantra contains a passage in which Śiva himself speaks of mercury (pārada) as his generative principle; he eulogizes the efficacy of this substance when killed six times. The transmutation of copper into gold, with the aid of mercury, is alluded to. Various alchemical processes are referred to.[315]

The Kulālikāmnāya version[316] contains a list of ariṣṭas (23.15c–43) and material of medical interest on conception, embryology, the structure of the human body, the series of dhātus, etc.[317]

The oldest MS used for the critical edition of the Kulālikāmnāya version was completed during the reign of Rāmapāla (A.D. 1077–1120); another MS dates from A.D. 1134–1135.[318] The oldest available MS of the *Kubjikāmata* dates from the reign of king Lakṣmīkāmadeva (A.D. 1024–1040); it contains the version called Laghvikāmnāya.[319]

The place and date of origin of the Kubjikā cult[320] and the region where the *Kubjikāmatatantra* was composed[321] are disputed issues.

LAGHURATNAPARĪKṢĀ.[322]

LAMPAṬATANTRA.[323] Lampaṭa is one of the Rasasiddhas in the *Rasaratnākara.*[324] Some treatises change his name into Lampaka[325] or Lambaka.[326]

The LAUHAPRADĪPA, a work by Trivikrama,[327] is a treatise in four chapters (pariccheda) on the medicinal use of inorganic substances. The titles of the chapters are: (1) lauhasya saṃskārāḥ, (2) upacāraḥ, (3) lauhayogānāṃ saṃgrahaḥ, (4) guṇalakṣaṇanirdeśo lauhānāṃ.[328]

The introductory stanzas refer to the following sources: Jīvanātha, Nāgārjuna, Patañjali,[329] and Vindhyasthasanmuni.

The work contains quotations, which are sometimes very long, from Amoghācārya, Bhojarāja's *Āyurvedasarvasva*, Jīvanāthācārya, *Nāgabuddhinirghaṇṭu*, Nāgārjuna, *Pātañjalatantra*, Patañjali, Vaṅgasena, Vindhyavāsin,[330] and *Yogaratnākara*;[331] lauhācāryas and other lauhaśāstras are also cited.[332]

Trivikrama is quoted by Āśubodha and Nityabodha Senagupta in their commentary on the *Rasaratnasamuccaya*, Gopāladāsa,[333] Govindasena,[334] Kāśīrāma,[335] Mādhava in his *Āyurvedaprakāśa*, the author of glosses on Nityanātha's *Rasaratnākara*,[336] Śivadāsasena,[337] and in the *Rasendracintāmaṇi.*[338]

The *Lauhapradīpa* is cited in Āśubodha's commentary on Govindasena's *Paribhāṣāpradīpa*[339] and in an anonymous *Śārīra.*[340]

Trivikrama was probably a resident of Bengal[341] and may have lived in the twelfth or thirteenth century since he is later than Vaṅgasena and earlier than Gopāladāsa.[342]

LOHABHASMAGUṆOPAYOGAVICĀRA.[343]
LOHAPRABHEDANIRŪPAṆA.[344]
LOHAPRADĪPA.[345]
LOHAPRAKARAṆA.[346]
LOHARATNĀKARA.[347]
LOHĀRṆAVA.[348]

The LOHASARVASVA or *Lohapaddhati* was written by Sureśvara, also called Surapāla.[349]

The *Lohasarvasva*[350] treats, in 318 stanzas, of lohas and their medicinal uses.[351] The author announces that, though eight lohas are known, four only will be dealt with in his work, namely iron, mica, gold, and copper (7cd–9ab). The origin, characteristics, purification and killing of iron (loha; 9cd–70),[352] mica (abhraka; 71–101), gold (suvarṇa; 102–115), and copper (tāmra; 116–125) are described. The extraction of the essence (sattvapātana) of mica (abhraka) and the killing of this essence are also discussed (81–101).

Eight types of iron are distinguished: sāra, auḍra, kaliṅgaja, bhadra, vajra, pāṇḍi, kāntaja, and nīrava (12cd–20ab). The vegetable and mineral substances used in the killing of iron[353] and in various puṭapākas are enumerated (25–29).

Some useful mantras are mentioned (134–138), followed by a list of anupānas (139–151) and dietary and behavioural rules to be observed after taking inorganic medicines (152–166).

Sureśvara proceeds with a series of formulae. Preparations containing one loha come first (loha: 170–216; abhraka: 217–226; suvarṇa: 227–234; tāmra: 235–238), followed by those containing two (239–276), three (277–297), and four lohas (299–300).

In spite of the assertion that four lohas only would be considered, the work ends with preparations containing five and more lohas, up to eight (301–316).[354]

Sources referred to by Sureśvara are: the *Lohatantras* of Hārīta, Nāgārjuna, Suśruta and Vyāḍi (6; 23).

The *Lohapaddhati* or *Lauhapaddhati* is quoted in the *Rasakāmadhenu*, Gulrājśarmamiśra's commentary on the *Āyurvedaprakāśa*, Hazārīlāl Sukul's commentary on the *Rasaratnasamuccaya*, and Ṭoḍara's *Āyurvedasaukhya.*[355] The *Lohasarvasva* is cited in Gulrājśarmamiśra's *Viśikhānupraveśavijñāna*. The work is mentioned as one of the sources of the *Pāradasaṃhitā*, *Rasayogasāgara*[356] and Yādavjī Trikamjī Ācārya's *Rasāmṛta*.

Two other works attributed to the same author are the *Śabdapradīpa*, a homonymic dictionary of medical botany in two sections and numerous chapters,[357] and the *Vṛkṣāyurveda*, a work on arboriculture.[358]

Sureśvara[359] or Surapāla[360] was a court-physician (bhiṣagantaraṅga) to king Bhīmapāla. His father Bhadreśvara[361] held the same office under king Rāmapāla

(A.D. 1078–1120)[362] and his great-grandfather Devagaṇa under Govindacandra.[363] His grandfather, Yaśodhana, was not a medical practitioner.[364]

Irrespective of the identity of Bhīmapāla,[365] Sureśvara, the son of the court-physician to Rāmapāla, must have lived in the first half of the twelfth century.[366]

LOHAŚĀSTRA.[367]
LOKOTTARARASAVIDHĀNA.[368]
MADANAKĀMEŚVARAYOGA by Satyanātha.[369]
MADANAKĀMEŚVARĪNIRMĀṆAVIDHI.[370]
MAHĀDBHUTARASATANTRA by Vīrabhadra.[371]
MAHĀDEVARASATANTRA by Kārttikeya.[372]
MAHĀDEVATANTRA.[373]
MAHĀPŪRṆACANDRODAYA by Pūjyapāda.[374]
MAHĀPŪRṆACANDRODAYAYOGA.[375]
MAHĀRĀJAMṚGĀṄKA.[376]

MAHĀRASĀṄKUŚA by Rasāṅkuśa.[377] Rasāṅkuśa is one of the Rasasiddhas in the *Pāradasaṃhitā* (1.99) and *Rasaratnasamuccaya* (1.5). Rasāṅkuśa is an author or the title of a work quoted by Ṭoḍara.

MAHĀRASAPRAKARAṆA.[378]
MAHĀRASĀYANATANTRA.[379]
MAHĀRASĀYANAVIDHI.[380]
MAHĀSINDŪRARĀJAMṚGĀṄKASŪRYAPRABHĀVATARASAVIDHĀNA.[381]
MAHODADHI by Śivanātha Yogin.[382]
MAKARADHVAJĀDIRASAVIDHI.[383]
MAKARADHVAJARAHASYA.[384]

MAṆIKALPA by Mān Tuṅgasūri, who may have lived in the thirteenth century: a treatise on precious stones in 225 verses.[385]

MĀṆIKARATNAPARĪKṢĀ.[386]
MAṆIMĀHĀTMYA or *Maṇiparīkṣā*.[387]

MAṆIMĀLĀ by Sourindro Mohun Tagore.[388] This treatise, entirely in verse, deals, after some introductory verses, with the following gems: the mythical jewel called syamantaka (9–72); vajra (diamond; 73–151);[389] māṇikya (ruby; 152–219);[390] vaidūrya (cat's eye; 220–242);[391] muktā (pearl; 243–329);[392] gomeda (zircon; 330–337);[393] vidruma (coral; 338–356);[394] marakata (emerald; 357–387);[395] puṣparāga (topaz; 388–396);[396] indranīla (sapphire; 397–424);[397] karketana (chrysoberyl; 425–429);[398] pulaka (garnet; 430–432);[399] rudhirākhya (carnelian; 433–434);[400] sphaṭika (quartz; 435–444);[401] bhīṣma (rock crystal; 445–452).[402]

Many gems[403] are divided into four types, named after the four varṇas (brāhmaṇa, kṣatriya, vaiśya, śūdra).

Sources are not indicated.[404] King Soma is referred to as an authority on diamonds (120). A sage called Kara is also quoted (349).

MAṆIPARĪKṢĀ.[405]
MAṆIPARĪKṢĀKALPA.[406]

MANTHĀNABHAIRAVA by Manthānabhairava.[407]

Manthānabhairava is quoted or mentioned in Dattarāma's *Bṛhadrasarājasundara*,[408] Lakṣmīrāma's commentary on the *Siddhabheṣajamaṇimālā*, the *Rasendracūḍāmaṇi*,[409] Ṭoḍara's *Āyurvedasaukhya*, and Trimalla's *Yogataraṅgiṇī* and *Bṛhadyogataraṅgiṇī*.

He is mentioned as one of the Rasasiddhas in Caturbhuja's commentary on the *Rasahṛdaya* (1.7), the *Pāradasaṃhitā* (1.99), *Rasajalanidhi* (III, 389–390), *Rasaratnasamuccaya* (1.6), *Rasataraṅgiṇī* (1.29–32), and *Rasendrasambhava* (introductory verses). Manthāna is a Mahāsiddha in Svātmārāma's *Haṭhayogapradīpikā* (1.6).

Formulae ascribed to Manthānabhairava are found in the *Bhaiṣajyaratnāvalī*,[410] *Bhāratabhaiṣajyaratnākara*,[411] *Rasaratnasamuccaya*,[412] *Rasayogasāgara*,[413] *Rasendracintāmaṇi*,[414] and *Yogaratnākara*.[415]

MĀTṚKĀBHEDATANTRA.[416] This treatise, consisting of 573 verses, arranged in fourteen chapters (paṭala), and composed in the form of a dialogue between Śaṃkara and Caṇḍikā, contains, though chiefly devoted to spiritual practices of a Tantric nature, some interesting matter pertaining to alchemy and medicine.[417]

The work describes the transmutation of copper into silver by the aid of an unknown substance called sambala (1.2–16), processes to which mercury and copper are subjected, aurifaction, and the beneficial effects of ingesting mercurial products (5.1–43), the preparation of the rasaliṅga (8.1–37), the reduction of minerals to ashes and the use of these ashes as drugs (9.1–31).

Some of the titles of the chapters (paṭala) in a MS described by R. Mitra are: raupyanirmāṇopāyakathana (1), saṃtānotpattiniyamakathana (2), mokṣasādhana (3), and pāradabhasmīkaraṇopāyatadbhasmamāhātmyakathana (5).[418]

A *Cīnatantra* (1.7),[419] *Kālītantra* (1.7),[420] and *Toḍalatantra* (8.18)[421] are referred to.

A number of correspondences with Nāthasiddha texts may point to the eleventh or twelfth century as the period of composition.[422] D.G. White is of the opinion that the *Mātṛkābhedatantra* is a relatively late text, probably dating from the latter part of the thirteenth century.[423]

The *Mātṛkābhedatantra* is quoted in Ambikādattaśāstrin's commentary on the *Rasendrasārasaṃgraha* and the commentary on the *Rasaratnasamuccaya* by Āśubodha and Nityabodha Senagupta.

MṚDĀNĪTANTRA.[424]
MŪṢĀLEPAVIDHI.[425]
NĀGABODHISIDDHĀNTA.[426]

NĀGĀRJUNĪVIDYĀ.[427]
NANDĪTANTRA.[428]
NĀSATYASAṂHITĀ.[429]
NAVAGRAHARASA.[430]
NAVARATNA.[431]
NAVARATNADHĀTUVIDYĀ.[432]
NAVARATNADHĀTUVIVĀDA by Balabhadra.[433]
NAVARATNAMĀLĀ, anonymous.[434]
NAVARATNAMĀLĀ by Mallinātha, son of Govinda.[435]

NAVARATNAPARĪKṢĀ by Nārāyaṇa Paṇḍita.[436] This treatise, which forms part of the author's *Smṛtisāroddhāra*,[437] deals with: vajra (36–57), muktāphala (58–106), padmarāga (107–125), indranīla (126–140), marakata (141–152), sphaṭika (153–158), puṣyarāga (159), vaiḍūrya (160), gomeda (161), and pravāla (162–165); the work ends with verses on artificial gems and ways of detecting them (174–183).[438]

NAVARATNAPARĪKṢĀ by Soma.[439] The author is said to be the Somadeva who compiled the *Mānasollāsa*, of which work the text of the *Navaratnaparīkṣā* forms part.[440]

NAVARATNARĀJAMṚGĀṄKASIDDHARASANIRMĀṆA.[441]
NAVARATNAŚUDDHI.[442]
NIDHIDARŚANA by Rāmavājapeyin.[443]
NITYANĀTHATANTRA.[444] This work may be the same as Nityanātha's *Rasaratnākara*.
PAÑCABĀṆAMODAKANIRMĀṆAVIDHI.[445]
PĀRADAJĀRAṆAMĀRAṆĀDIVIDHI.[446]

PĀRADAKALPA:[447] the twenty-eighth chapter of the *Rudrayāmala*,[448] dealing with the medicinal properties of mercury and the preparation of mercurial medicines.[449]

PĀRADAKALPADRUMA by Ananta, written in A.D. 1792.[450]
PĀRADANĀMA.[451]
PĀRADASAṂHITĀ by Cittodbhava Haṃsarāja.[452]
PĀRADAŚODHANAVIDHI.[453]
PĀRADĀṢṬĀDAŚASAṂSKĀRA, anonymous.[454]
PĀRADĀṢṬĀDAŚASAṂSKĀRA by Kṛṣṇarāvanarasiṃha.[455]
PĀRADAVIDHI.[456]

PĀRADAYOGAŚĀSTRA by Śivarāmayogīndra,[457] a work in 262 verses and eleven chapters (paṭala), dealing with processes of making mercurial preparations for medicinal purposes, for conferring longevity, and for converting base metals into gold.[458] Mentioned as one of the sources of the *Rasayogasāgara*.[459]

This work is sometimes assigned to the sixteenth century.[460]

PĀṢĀṆABHASMAVIDHĀNA.[461]

PĀṢĀṆAŚUDDHIKRAMA.[462]
PRAMADEBHĀṄKUŚARASAVIDHI.[463]
PRĀṆĀṄKUŚARASAVIDHI.[464]
PRATĀPALAṄKEŚVARARASA.[465]
PRATĀPALAṄKEŚVARĪNIRMĀṆACIKITSĀVIDHĀNA.[466]
PRAYOGACINTĀMAṆI by Rāmamāṇikyasena.[467]
PŪRṆACANDRODAYARASAVIDHĀNA.[468]
PURUṢĀRTHAPRABODHA.[469]
RĀJAMṚGĀṄKAVYĀKHYĀ.[470]
RĀJARATNĀKARA by Ḍhuṇḍhirāja, son of Vīreśvara alias Pante Bhaṭṭa.[471]
RAJATABHASMAVIDHĀNA.[472]
RAJATASUVARṆAKARAṆAKRIYĀ.[473]

RASABHAIRAVA by Bhairava.[474] Bhairava is one of the Rasasiddhas; several rasayogas are attributed to him. He is also credited with the *Gaurīkāñcalikātantra* and *Rasendrabhairava*.

RASABHAIṢAJYAKALPADĪPIKĀ.[475]
RASABHAIṢAJYARATNĀVALI by Sūryakavi.[476]
RASABHASMANIRMĀṆAKRAMA.[477]
RASABHASMASĀDHANA.[478]
RASABHASMAVIDHI.[479]

RASABHEṢAJAKALPA[480] or *Rasabheṣajakalpadīpikā*[481] by Sūryapaṇḍita. Subjects dealt with are: furnaces, fuels, kinds of earth, processing of mercury, the purification of medicinal substances, perfumed oils, diet.[482]

RASABHOGAMUKTĀVALĪ.[483]
RASABHŪPATI.[484]
RASABODHACANDRODAYA.[485] Used as a source in the *Rasayogasāgara*.[486]

RASACAKRA by Bṛhaspati.[487] This work, in 8,000 verses, is mentioned in the *Gorakṣasaṃhitā*.[488]

RASACAKRACŪḌĀMAṆI.[489]

RASACAṆḌĀṂŚU or *Rasaratnasaṃgraha* by Datta Ballāla Borakara, also called Datta Vaidya, a Sārasvata brāhmaṇa, son of Ballāladeva and Lakṣmī. This work is a modern compilation, taken from the *Rasaprakāśāsudhākara*, *Rasaratnākara*, *Rasaratnasamuccaya*, etc.; it was completed in A.D. 1919. It consists of two parts (khaṇḍa), the first of which deals with śodhana, māraṇa, etc., of the rasas, uparasas, dhātus, upadhātus, etc., while the second one contains formulae to be used in the treatment of various disorders.[490]

RASACAṆḌĀṂŚU by Dattarāma Vaidya.[491]

RASACAṆḌĀṂŚU by Dattātreya.[492] Used as a source in the *Bheṣajasaṃhitā, Rasayogasāgara,*[493] and *Rasendrasambhava.*

A *Rasacaṇḍāṃśu* is quoted in the *Āyurvedīya Khanijavijñāna, Kūpīpakvarasanirmāṇavijñāna,* and *Rasadhātuprakāśa.*

The disease called smaronmāda was known to the author of this work,[494] which points to a rather late date.[495]

RASACAṆḌĀṂŚU by Śrīśaṃkara.[496]
RASACANDRATANTRA by Bṛhaspati.[497]
RASACANDRIKĀ, anonymous.[498]
RASACANDRIKĀ by Mādhava Kavicandra.[499]
RASACANDRIKĀ by Nīlāmbara Purohita.[500]
RASACANDRODAYA by Candrasena.[501]
RASACIKITSĀGRANTHA.[502]
RASACINTĀMAṆI, anonymous.[503]

RASACINTĀMAṆI by Anantadeva[504] or Anantadevasūri,[505] a work in about 900 verses, arranged in eleven chapters.[506]

The subjects of chapters (stavaka) one to six are:[507] (1; 120 verses) twenty methods of preparing rasabhasman, gandhakagrāsa, the preparation of various guṭikās; (2; 142 verses) the formulae and uses of seventeen rasayogas; (3; 98 verses) the treatment of kuṣṭha; (4; 128 verses) the treatment of śotha and some other disorders; (5; 162 verses) the saṃskāras of mercury; (6; 146 verses) auri- and argentifaction, rasāyana and vājīkaraṇa; (7; 213 verses) eighteen rasayogas; (8; 182 verses) sixteen rasayogas; (9; 198 verses) forty-one rasayogas; (10; 45 verses) thirteen rasayogas; (11; 138 verses) thirty-three rasayogas.

The verses quoted by P. Rāy are concerned with the preparation of a white mercurial bhasman, the extraction of the sattva of rasaka or kharpara (i.e., the preparation of zinc) and tutthaka, and the preparation of artificial gold and silver.[508]

Works quoting the *Rasacintāmaṇi* are: *Aṣṭamahāmātrā,*[509] *Āyurvedaprakāśa,* Govindarāma's *Rasasaṃgrahasiddhānta,*[510] Gulrājśarmamiśra's *Viśikhānupraveśavijñāna* and commentary on the *Āyurvedaprakāśa, Kūpīpakvarasanirmāṇavijñāna,* Rāmacandra's *Rāmavinoda,*[511] *Rasadhātuprakāśa, Rasakāmadhenu,* Sadānanda's *Rasataraṅgiṇī, Rasatattvavivecana,* Somadevaśarman's commentary on the *Āyurvedaprakāśa,* Ṭoḍara's *Āyurvedasaukhya,*[512] and Trimalla's *Yogataraṅgiṇī*[513] and *Bṛhadyogataraṅgiṇī.*[514] The *Rasacintāmaṇi* of Anantadeva was one of the sources of the *Rasayogasāgara.*[515] The *Rasacintāmaṇi* is also mentioned among the sources of the *Pāradasaṃhitā.* The work is anonymously quoted in the *Rasajalanidhi.*

A *Cintāmaṇi,* quoted by Ṭoḍara, may or may not be the *Rasacintāmaṇi.*[516]

Anantadeva was a resident of Kanakācala[517] and a devotee of Tripurasundarī.[518]

The quotations establish that Anantadeva is earlier than Ṭoḍara.[519]

RASACINTĀMAṆI by Muralīdhara Śarman.[520]
RASACINTĀMAṆI by Padmanapaṇḍita.[521]

RASADARPAṆA, anonymous.[522] An unspecified *Rasadarpaṇa* is quoted in one of the pariśiṣṭas of the *Ānandakanda,*[523] the *Āyurvedīya Khanijavijñāna,* the *Bṛhadrasarājasundara,* Gulrājśarmamiśra's commentary on the *Āyurvedaprakāśa,* Hazārīlāl Sukul's commentary on the *Rasaratnasamuccaya,* the *Kūpīpakvarasanirmāṇavijñāna, Rasatattvavivecana, Rasendrapurāṇa,* Ṭoḍara's *Āyurvedasaukhya,*[524] and Trimalla's *Yogataraṅgiṇī.* A *Rasadarpaṇa* is referred to in Revaṇasiddha's *Vīrabhaṭṭīya.*

RASADARPAṆA by Revaṇasiddha.[525] A *Rasadarpaṇa,* quoted in Viṣṇudeva's (= Viṭṭhala's) *Rasasindhu,* is probably Revaṇasiddha's work, because Trimalla, who also wrote a *Rasadarpaṇa,* is much later than Viṣṇudeva. Revaṇasiddha may therefore be earlier than the third quarter of the fourteenth century.

RASADHĀTUPRAKĀŚA by Vaidya P.D. Muḷe.[526]

The forty chapters (adhyāya) of this compilation deal with: (1) rasaśālā; (2) paribhāṣā; (3) vargas (groups of substances); (4) yantras; (5) types of mūṣā and mudrā; lepa; types of koṣṭhī; (6) types of puṭa; (7) kāñjī; (8) māna (weights and measures); (9) pāradotpatti (the origin of mercury), the doṣas (blemishes) of mercury; (10) pāradaśuddhi (the purification of mercury) and the saṃskāras; (11) gandhakajāraṇa, hiṅgulotthapāradaniḥsāraṇavidhi (the extraction of mercury from cinnabar); (12) mūrchanā; (13) nirgandhamūrchanā: mugdharasa, rasakarpūra; (14) sagandhamūrchanā: kajjalī, rasasindūra, candrodaya; (15) kajjalī, parpaṭī; (16) suvarṇajāraṇā; (17) rasabandha; (18) pāradabhasman and its uses; (19) lohasiddhi and suvarṇanirmāṇa (aurifaction); (20) the dhātus (metals); (21) suvarṇa (gold); (22) rajata (silver); (23) tāmra (copper); (24) loha (iron); (25) maṇḍūra; (26) nāga (lead); (27) vaṅga (tin); (28) yaśada (zinc); (29) pittala, kāṃsya, varta; (30) the mahārasas; (31) abhraka; (32) vaikrānta; (33) suvarṇamākṣika; (34) tāramākṣika; (35) vimala; (36) śilājatu; (37) sasyaka; (38) capala; (39) rasaka; (40) the uparasas.

The sources used in compiling this treatise are: *Āyurvedaprakāśa, Bhaiṣajyaratnāvalī, Bhāratabhaiṣajyaratnākara, Bhāvaprakāśa, Nighaṇṭuratnākara, Rasacaṇḍāṃśu, Rasacintāmaṇi, Rasahṛdaya, Rasakāmadhenu, Rasaprakāśasudhākara, Rasaratnākara, Rasaratnasamuccaya, Rasārṇava, Rasataraṅgiṇī, Rasāyanasāra, Rasendrasārasaṃgraha, Śāligrāmanighaṇṭu,* Suśruta, *Ṭoḍarānanda, Viṣatantra,* and *Yogaratnākara.*

RASADHĀTUŚODHANAMĀRAṆA.[527]
RASĀDHIKĀRA by Harihara.[528]
RASĀDHYĀYA by Puruṣottamasūri.[529]

RASĀDĪNĀṂ MĀRAṆAJĀRAṆĀDIPRAYOGAḤ. This work is a guide for the purification of mercury and other substances; it is composed in verse and prose.[530]

RASADĪPA by (Siddha) Prāṇanātha.[531]

RASADĪPAKA.[532]
RASADĪPIKĀ, anonymous.[533]

RASADĪPIKĀ by Ānandānubhava.[534] Ānandānubhava[535] and the *Rasadīpikā* are quoted in the *Rasasindhu*, which establishes that the author lived before the third quarter of the fourteenth century. Mentioned as one of the sources of the *Rasayogasāgara*.[536]

RASADĪPIKĀ by Ananta.[537] Quoted in the *Rasakaumudī* of Mādhavabhiṣaj.[538] A *Rasadīpikā* is cited in the commentary on the *Aṣṭamahāmātrā*,[539] the *Kūpīpakvarasanirmāṇavijñāna*, *Rasasindhu*, Ṭoḍara's *Āyurvedasaukhya*, and Vaidyarāja's *Sukhabodha*.[540]

RASADĪPIKĀ by Rāmarāja.[541] The same author is credited with a *Nāḍīprakāśa* and *Rasaratnapradīpa*.[542] Quoted in Vaidyacintāmaṇi's *Prayogāmṛta*.[543]

RASĀDIŚUDDHI.[544]

RASĀDIYOGAGRANTHA. This work deals with the purification of mercury and other inorganic substances; a number of medicinal preparations are described.[545]

RASADRUTIPRAKARAṆA.[546]
RASĀDYUTPATTIVARṆANA.[547]
RASAGOVINDA by Govinda.[548]

RASAGRANTHA. This work describes the origin and properties of mercury and its different varieties; its use in medicinal preparations is also indicated.[549]

RASAHEMAN.[550]
RASAHṚDAYA, anonymous.[551]

RASAJÑĀNA by Jñānajyotis.[552] Quoted in the *Bhaiṣajyaratnāvalī*[553] and *Kūpīpakvarasanirmāṇavijñāna*. The *Rasajñāna* is one of the sources of the *Rasayogasāgara*.[554]
Jñānajyotirmunīndra is referred to in Dattarāma's *Bṛhadarasarājasundara*.[555]

RASAKAKṢĀPUṬA by Nāgeśa, son of Gannirāja of Bhāradvājagotra and Vaikhānasasūtra.[556] The author gives at the beginning of his treatise a list of the following authorities and works consulted by him: Bhavānī,[557] Carpaṭi, Dhanvantari, Govinda, Jinendra's *Amṛta*,[558] *Kākacaṇḍeśvarīmata*, Lokanāyaka,[559] Nāgārjuna, Nīrandhra,[560] *Pīyūṣa*, *Rājamṛgāṅka*, *Rasadīpikā*, *Rasāmṛta*, *Rasarāja*, *Rasaratnākara*, *Rasārṇava*, *Rasasattva*, Rasasiddha, *Rasendramaṅgala*, Sutasoma,[561] Svacchanda, Tārkṣya,[562] Vyādi, and Vyāsa.[563]

RASAKALIKĀ.[564]

RASAKALPA[565] This work, said to form part of the *Rudrayāmala*, and written in the form of a dialogue between Śiva and Caṇḍikā, describes metals and minerals, their killing, druti, sattvapātana and some other processes, without giving attention to the medicinal uses of the substances produced. The author claims to have tested all the processes outlined in the work. Six metals are distinguished (gold, silver, copper, tin, lead, iron), eight mahārasas (pārada, hiṅgula, vaiṣṇava,[566] śasyaka, śaila, capala, rasaka, amala),[567] eight rasas (abhraka, tutthaka, kānta, rājāvarta, añjana, vajra, vaikrāntaka, ṭaṅkaṇa), and an unspecified number of uparasas (gandhaka, tālaka, śilā, kṣiti,[568] khecara,[569] gairika, etc.). Sulphur (gandhaka) is said to be of four types (sita, asita, aruṇa, pīta), tālaka of two types (godanta and pāṭalacchavi), śilā of two types (raktā and pītā), kāsīsa of three types (kāsīsa, puṣpakāsīsa, hīrakāsīsa), gairika of two types (sauvarṇa and lohita). Kaṅkuṣṭha is not accepted as a rasa. The extraction of the essence of rasaka, i.e., the preparation of zinc, is described.[570]
Svacchandabhairava and Govinda are referred to.[571]
The *Rasakalpa* is sometimes placed in the thirteenth century.[572]

RASAKALPA by Basava.[573]
RASAKALPADRUMA by Jayadeva.[574]
RASAKALPALATĀ, anonymous.[575]
RASAKALPALATĀ by Kāśīnātha.[576]

RASAKALPALATĀ by Magnirāma,[577] Magnīrāma,[578] or Maganīrāma.[579] Mentioned as one of the sources of the *Rasayogasāgara*.[580] This work is sometimes assigned to the sixteenth century.[581]

RASAKALPALATĀ by Nārāyaṇamiśra[582] or Nārāyaṇa Śarman.[583] This work is sometimes placed in the fifteenth century.[584]

RASAKALPATARU.[585]
RASAKALPAVALLĪ by Śrīkṛṣṇasena.[586]
RASAKAṄKĀLI by Kaṅkāli.[587]

RASAKAṄKĀLĪYA by Kaṅkālayogin.[588] This work is one of the sources of the *Rasayogasāgara*.[589] The *Rasakaṅkālīya* is quoted in the *Kūpīpakvarasanirmāṇavijñāna*.

RASĀKARA.[590]
RASAKARPŪRA.[591]
RASAKAṢĀYA by Vaidyarāja, son of Viśārada.[592]

RASAKAUMUDĪ, anonymous.[593] An unspecified *Rasakaumudī* is quoted in Āśubodha and Nityabodha Senagupta's commentary on the *Rasaratnasamuccaya*, the *Kūpīpakvarasanirmāṇavijñāna*, and the *Rasāyanasaṃgraha*.

RASAKAUMUDĪ by Golhadeva.[594]

RASAKAUMUDĪ by Mādhava.[595] This work deals with rasayogas employed in medicine; some of the chapters (adhikāra) are concerned with the treatment of jvara, jvarātīsāra, grahaṇī, visphoṭa, masūrī, mukharoga, śiroroga, strīroga, bālaroga, and viṣa, as well as with vṛṣya (= vājīkaraṇa); the saṃskāras of mercury and the yantras used are described; some gaṇas are enumerated: niyāmaka-, rasamāraka-, guḍūcī-, pañcapitta-, amla-, and kṣāragaṇa.[596]

Mādhava's *Rasakaumudī* is assigned to the sixteenth century, because of its similarity to the *Rasapradīpa* in many respects, while, moreover, opium and mineral acids are prescribed in it.[597] P. Cordier, who examined a MS of the work, noticed quotations from the *Rasaratnākara* and Ānandānubhava's *Rasadīpikā*.[598]

RASAKAUMUDĪ by Śaktivallabha.[599] This work is one of the sources of the *Rasayogasāgara*.[600]

RASAKAUMUDĪ by Viṭṭhala.[601]
RASAKAUSTUBHA.[602]
RASAKAUTUKA, anonymous.[603]
RASAKAUTUKA by Mallāri.[604]
RASAKAUTUKĀKHYA.[605]
RASAKETU.[606]
RASAKINNARA.[607] Used as a source in the *Rasayogasāgara*.
RASALAKṢAṆAMAÑJARĪ by Kṣoṇimaṇilakṣmaṇa.[608]
RASALAKṢAṆĀNI.[609]
RASALAKṢAṆAŚĀSTRA.[610]

RASĀLAṂKĀRA, anonymous.[611] An unspecified *Rasālaṃkāra* is quoted in the *Kūpīpakvarasanirmāṇavijñāna*, *Rasakāmadhenu* and Ṭoḍara's *Āyurvedasaukhya*;[612] it is one of the sources of the *Pāradasaṃhitā*.

RASĀLAṂKĀRA by Govinda, son of Nṛhari and follower of Lakṣmīnṛsiṃha.[613]
RASĀLAṂKĀRA by Rāmavīrabhaṭṭa.[614]

RASĀLAṂKĀRA by Rāmeśvarabhaṭṭa.[615] Used as a source in the *Rasayogasāgara*.[616] This work is sometimes placed in the fourteenth century.[617]

RASALEHYAVIDHĀNA.[618]
RASAMĀLĀ.[619]

RASAMĀNASA by Dayārāma, son of Devakīnandana.[620] The *Rasamānasa* is quoted in the *Pāradasaṃhitā* and *Rasatattvavivecana*.

RASAMAṄGALA by Gahanānandamuni.[621]

Numerous rasayogas are ascribed to Gahana,[622] Gahanānanda,[623] Gahanānandanātha,[624] and Gahananātha.[625]

The *Rasamaṅgala*[626] is quoted in the commentary on the *Aṣṭamahāmātrā*,[627] in the *Capalanirṇaya* (by Narendranāthamitra) of the *Rasataraṅgiṇī*, and in the *Rasendrakalpadruma*. The work is referred to in Nityanātha's *Rasaratnākara*.

Gahananātha is quoted in Mādhava Kavirāja's *Mugdhabodha*.

A *Yogaratnākara* is attributed to Gahananātha.

Gahanānandanātha was the guru of Cidghanānandanātha, the author of the *Satkarmasaṃgraha*.[628]

RASAMAṆI by Harihara.[629]
RASAMAÑJARĪ, anonymous.[630]
RASAMAÑJARĪ by P.T. Nārāyaṇan Mūs (1870–1907).[631]
RASAMĀRAṆAVIDHI.[632]
RASAMĀRGA.[633]

RASAMĀRTAṆḌA. This work mentions the following seventeen saṃskāras of mercury: paṭṭasāraṇa, malāpakarṣaṇa, sveda, śuddhi, mardana, dhāvana, mūrchana, utthāpana, tiryakpātana, ūrdhvapātana, adhaḥpātana, śuci, vīryānayana, niyāmana, nirodhana, dīpana, lelihāna, and mukhīkaraṇa.[634]

The *Rasamārtaṇḍa* is quoted in Gulrājśarmamiśra's commentary on the *Āyurvedaprakāśa*, the *Kūpīpakvarasanirmāṇavijñāna*, the *Rasatattvavivecana*, and Somadevaśarman's commentary on the *Āyurvedaprakāśa*.

RASĀMṚTA, anonymous.[635] An unspecified *Rasāmṛta* is quoted in the *Bheṣajasaṃhitā*, *Bhāvaprakāśa*,[636] Gulrājśarmamiśra's commentary on the *Āyurvedaprakāśa*, the *Pāradasaṃhitā*, *Rasakāmadhenu*, *Rasasindhu*, and *Rasendrakalpadruma*.

RASĀMṚTA by Jayadevakavirāja.[637]
RASĀMṚTA by Jayanācārya.[638]
RASĀMṚTA by Kāmadeva.[639]
RASĀMṚTA by Kayyadevapaṇḍita.[640]
RASĀMṚTA by Rāmeśvara.[641]
RASĀMṚTA by Vaidyakendrapaṇḍita.[642]

RASAMUKTĀVALĪ, a treatise on metals and their medicinal properties.[643] A *Rasamuktāvalī* was written by Devanātha,[644] the teacher of Cūḍāmaṇimiśra, the author of the *Rasakāmadhenu*. The latter gives an extract from his teacher's work without mentioning its title.

Devanātha's *Rasamuktāvalī* is quoted by his son, Vāsudeva, in the latter's commentary on Subandhu's *Vāsavadattā*.[645] Devanātha and Vāsudeva were Śākadvīpīya brāhmaṇas.[646]

An unspecified *Rasamuktāvalī* is quoted in the *Rasasindhu* and was one of the sources of the *Rasayogasāgara*.[647]

Devanātha's *Rasamuktāvalī* is obviously earlier than the *Rasakāmadhenu*. P.K. Gode placed it tentatively in the period between A.D. 1500 and 1672.[648] The

Rasamuktāvalī quoted in the *Rasasindhu* cannot be Devanātha's work, on account of the much earlier date of Viṭṭhala, the author of the *Rasasindhu*.

RASAMŪLIKĀNIGHAṆṬU:[649] a description of particular plants used in alchemical processes.

RASANAKṢATRAMĀLIKĀ by Mathanasiṃha,[650] physician to the king of Mālvā.[651] Two formulae from this work are found in P. Rāy;[652] the first formula mentions opium, the second is a svacchandabhairavarasa.[653] Mathanasiṃha's treatise is probably quoted as *Nakṣatramālā* in Ṭoḍara's *Āyurvedasaukhya* and Viṭṭhala's *Rasasindhu*.[654] Viṭṭhala's quotation points to a date earlier than the third quarter of the fourteenth century.[655] One of the MSS was completed in A.D. 1500/1501.[656].

RASĀNANDAKAUTUKA by Naravāhana.[657] Naravāhana is one of the Rasasiddhas in the *Pāradasaṃhitā, Rasajalanidhi, Rasaratnākara, Rasaratnasamuccaya, Rasataraṅgiṇī*, and *Rasendrasambhava*.[658]

RASANIBANDHA.[659]
RASANIDĀNA.[660]
RASANIGHAṆṬU.[661]
RASANIRMĀṆAVIDHĀNA.[662]
RASANIRMĀṆAVIDHI.[663]
RASANIRṆAYA.[664]
RASĀṄKUŚA.[665]

RASĀṄKUŚATANTRA by Candranātha.[666] Candra's *Rasāṅkuśa*, a work in 10,000 verses, is mentioned in the *Gorakṣasaṃhitā*.[667] A *Rasāṅkuśa* is quoted in the *Āyurvedasaukhya*.[668] Several rasayogas are attributed to Candranātha.

RASAPADDHATI, anonymous.[669] Quoted in the *Pāradasaṃhitā*.[670]
RASAPADDHATI by Bhairavaprasāda.[671]
RASAPADMACANDRIKĀ.[672]
RASAPARAMACANDRIKĀ.[673]

RASAPĀRIJĀTA, anonymous.[674] An unspecified *Rasapārijāta* is one of the sources of the *Āyurvedīya Khanijavijñāna, Pāradasaṃhitā*, and *Rasayogasāgara*.[675]

RASAPĀRIJĀTA by Lakṣmīdhara Sarasvatī.[676]
RASAPĀRIJĀTA by Rāmacandra.[677]
RASAPĀRIJĀTA by Vaidya Śiromaṇi.[678]
RASAPRABANDHA.[679]
RASAPRABANDHACANDRODAYA by Bīsaladeva.[680]
RASAPRABHEDANIRŪPAṆA.[681]
RASAPRABODHA by Nāgadeva, son of Mallideva.[682]

RASAPRABODHACANDRODAYA by Nāganātha, son of Janārdanamiśra.[683]

RASAPRADĪPA.[684] An unspecified *Rasapradīpa* is quoted in Jñārasarāma's version of the *Amṛtasāgara*, the commentary on the *Āyurvedābdhisāra*, the *Bhāvaprakāśa* and its glosses, the *Bṛhadrasarājasundara*, the *Kūpīpakvarasanirmāṇavijñāna*, the *Nāsīrasāhī Kaṅkālīgrantha*,[685] the *Rasakāmadhenu*, and Ṭoḍara's *Āyurvedasaukhya*.[686] It is one of the sources of Hariśaraṇānanda's *Kūpīpakvarasanirmāṇavijñāna*.

RASAPRADĪPA by Nāganātha.[687]

RASAPRADĪPA by Prāṇanātha.[688] This work consists of two chapters (adhyāya), with respectively 150[689] and 469 verses. The maṅgala praises Mukunda[690] and Govinda. The introductory stanzas state that the author will summarily describe the purification and killing of the dhātus, upadhātus, rasas, uparasas, ratnas, uparatnas, viṣas and upaviṣas (1.4–5). The author distinguishes the same seven dhātus as many works on rasaśāstra do: svarṇa, raupya, tāmra, raṅga (i.e., tin), jasada, sīsa, and loha (1.6). His series of seven upadhātus is unusual: suvarṇamākṣika, tāmramākṣika, tuttha, kāṃsya, rīti, sindūra, and śilājatu (1.12). Tuttha, sindūra and śilājatu can be subjected to purification (śodhana) only, not to killing (māraṇa) (1.13). The preparation of śaṅkhadrāvarasa is described (2.2.29–32). The medicinal uses of inorganic compounds form the main subject of chapter two.[691] The preparation of rasakarpūra, employed in the treatment of phiraṅgaroga, finds a place in this work (1.111–117; 2.2.295–298). Cobacīnī is prescribed against phiraṅgaroga (2.2.306), opium (aheḥ garalam, ahiphena) against vātavyādhi, visūcikā and apasmāra (2.1.37, 82, 121).

Sources and earlier authorities are not referred to or quoted.

Prāṇanātha's *Rasapradīpa* is one of the sources of the *Rasayogasāgara*.[692]

The author gives no information about his genealogy.[693]

Prāṇanātha cannot be earlier than the sixteenth century because of his references to phiraṅgaroga[694] and its treatment with cobacīnī and rasakarpūra.[695]

RASAPRADĪPA by Rāmacandra of the Guha family.[696] Other works by Rāmacandra are the *Rasendracintāmaṇi* and *Cakradattanāmakagrantha*.[697]

Prāṇanāthavaidya is recorded as the author of a commentary on Rāmacandra Guha's *Rasapradīpa*.[698]

RASAPRADĪPA by Śaṃkarabhaṭṭa, son of Trimallabhaṭṭa.[699]
RASAPRADĪPA by Vaidyarāja.[700]
RASAPRADĪPA by Viśāladeva.[701]
RASAPRADĪPA(SAṂGRAHA).[702]

RASAPRADĪPIKĀ, anonymous.[703] This work consists of four chapters (adhyāya): rasaśuddhibhasmādhikāra, mahārasoparasasādhāraṇarasānāṃ śuddhibhasmādhikāraḥ, navaratnaśuddhibhasmādhikāra, and navalohaśuddhibhasmasindūrādhikāra.[704]

Maṅgalagirisūri, son of Jagannātha of Ātreya gotra, of the Gelavaṅgalavaṃśa,

wrote a commentary on the first chapter.[705] He is also the author of a commentary on the *Bheṣajakalpa* attributed to Bharadvāja.[706]

This work is apparently identical with the *Rasapradīpikā* attributed to Bharadvāja.

RASAPRADĪPIKĀ by Bharadvāja.[707] This work consists of four chapters (adhyāya), devoted to: (1) mercury and its processing; (2) the mahārasas (vaikrānta, mākṣika, śilādhātu = śilājatu, sasyaka, capala, rasaka), uparasas (gandhaka, gairika, kāsīsa, saurāṣṭra, haritāla, manaḥśilā, añjana, kaṅkuṣṭha), sādhāraṇarasas (kampilla, gaurīpāṣāṇa, navasāra, varāṭaka, bodāraśṛṅgī, hiṅgula), the purification of opium (ahiphena), vatsanābha, nepāla, and mahiṣākṣa; (3) the nine gems (māṇikya, mauktika, pravāla, marakata, puṣparāga, vajra, nīla, vaiḍūrya, gomedaka); (4) the nine metals.[708]

The main source of the *Rasapradīpikā* was the *Rasaratnasamuccaya*, though the arrangement of the subjects differs.

Part of a commentary, namely the commentary on the first chapter, by Maṅgalagiri Sūri, son of Jagannātha, of the Gelavaṅgalavaṃśa, has been preserved.[709]

A Telugu version of the *Rasapradīpikā* was made by Muḍumba Veṅkaṭācārya, who does not refer to Bharadvāja as its author, but presents the work as an instruction of Ātreya by Agastya, in accordance with revelations by the Aśvins to Dhanvantari.[710]

The *Rasapradīpikā* is later than the sixteenth century, on account of the date of the *Rasaratnasamuccaya*, its chief source, and earlier than the eighteenth century, the period in which Muḍumba lived.[711]

RASAPRADĪPIKĀ by Maṅgalagirisūri.[712]

RASAPRAKĀŚA, anonymous.[713] A *Rasaprakāśa* is one of the sources of the *Pāradasaṃhitā*.

RASAPRAKĀŚA by Kṛṣṇaśarman.[714]
RASAPRAKĀŚA by Mūlarāja.[715]
RASAPRAYOGA.[716]
RASAPRAYOGA by Somaprabhācārya.[717]

RASARAHASYA by Dayārāma, son of Devakīnandana.[718] This work is quoted in Mādhava's *Sarvadarśanasaṃgraha*,[719] the *Rasakāmadhenu*, the *Rasasindhu*, and Ṭoḍara's *Āyurvedasaukhya*. It is one of the sources of the *Pāradasaṃhitā*.

The reference to the *Rasarahasya* in the *Rasasindhu* establishes that Dayārāma lived before the third quarter of the fourteenth century.

RASARĀJA, anonymous.[720] Quoted in the *Bṛhadrasarājasundara*.
RASARĀJA by Lakṣmīśvara.[721]
RASARĀJA by Matirāma.[722]

RASARĀJA by Śaṃkara.[723] Śaṃkara is one of the Rasasiddhas in the *Rasataraṅgiṇī* and *Rasendrasambhava*. Several rasayogas are ascribed to him. He is also credited with a

Rasaratnasamuccaya and *Rasaśaṃkara*.

RASARĀJAHAṂSA, anonymous.[724] Quoted in the *Pāradasaṃhitā*, *Rasakāmadhenu* and Ṭoḍara's *Āyurvedasaukhya*. The *Rājahaṃsa*, quoted by Ṭoḍara, may be the same work.

RASARĀJAKALPA.[725]

RASARĀJAKALPALAKṢMĪ by Viṣṇu Paṇḍita, son of Mahādeva.[726] This work is undoubtedly identical with Viṣṇudeva's *Rasarājalakṣmī*.

RASARĀJALAKṢMĪ, anonymous.[727] A work of this title is one of the sources of the *Pāradasaṃhitā*; it is quoted in the *Rasakāmadhenu*[728] and Ṭoḍara's *Āyurvedasaukhya*.[729]

RASARĀJALAKṢMĪ by Rāmeśvarabhaṭṭa.[730] This work describes the purification and the properties of mercury.[731]

Rāmeśvarabhaṭṭa was the son of Viṣṇudeva, who wrote the *Rasarājalakṣmī*; he can therefore be placed in the latter half of the fourteenth century. He is regarded as the author of a commentary on his father's work.[732]

RASARĀJALAKṢMĪ by Revaṇasiddha.[733]
RASARĀJALAKṢMĪ by Sarvajñabhaṭṭa.[734]

RASARĀJAMAHODADHI by Kapālin.[735] A *Rasarājamahodadhi* was one of the sources of the *Rasavidyāmahārṇava*.

RASARĀJAMṚGĀṄKA by Bhojarāja.[736].
RASARĀJAPRAKARAṆA by Mādhava Upādhyāya.[737]

RASARĀJAŚAṂKARA, anonymous.[738] A *Rasarājaśaṃkara* is quoted in Hazārīlāl Sukul's commentary on the *Rasaratnasamuccaya*, the *Kūpīpakvarasanirmāṇavijñāna*, and the *Pāradasaṃhitā*.

RASARĀJAŚAṂKARA by Rāmakṛṣṇa, son of Mudgala,[739] great-grandson of Kamalākara, pupil of Devendravana.[740] This treatise in nine chapters (alaṃkāra)[741] deals with alchemical procedures and the treatment of diseases.[742] It is one of the sources of the *Rasayogasāgara*.[743] The work is sometimes assigned to the fifteenth century.[744]

RASARĀJASAṂSKĀRĀḤ.[745]
RASARĀJAŚEKHARA by Gaṅgādhara.[746]

RASARĀJAŚIROMAṆI by Paraśurāma.[747] Mentioned as one of the sources of the *Rasayogasāgara*.[748] An unspecified *Rasarājaśiromaṇi* is quoted in the *Kūpīpakvarasanirmāṇavijñāna*.

RASARĀJAŚIROMAṆI by Revaṇa Siddha.[749]
RASARĀJASUDHĀNIDHI by Vrajarāja Śukla.[750]
RASARAÑJANA.[751]
RASARASĀRṆAVA.[752]
RASARATNA by Śrīnātha.[753]

RASARATNADĪPIKĀ, unspecified. Quoted in the *Rasakāmadhenu*, *Pāradasaṃhitā*, and Somadevaśarman's commentary on the *Āyurvedaprakāśa*. A *Ratnadīpikā* is cited in Ṭoḍara's *Āyurvedasaukhya*.

RASARATNADĪPIKĀ by Mallarāja.[754]
RASARATNĀKARA, anonymous.[755]

RASARATNĀKARA by Ādinātha.[756] Ādinātha is one of the Mahāsiddhas in the *Haṭhayogapradīpikā* (1.5).[757] He is also mentioned as the first of the nine Nāthas[758] and the first of twelve sages to whom the Kāpālika doctrine was revealed.[759]

RASARATNĀKARA by Cakrapāṇi.[760]
RASARATNĀKARA by Devacandra.[761]
RASARATNĀKARA by Devācārya.[762]

RASARATNĀKARA by Nāgārjuna.[763] Actually, this work does not exist; the work recorded in this way is Nāgārjuna's *Rasendramaṅgala*.[764]

RASARATNĀKARA by Nāthasiṃha.[765] This work is probably identical with Nityanātha's *Rasaratnākara*.

RASARATNĀKARA by Pūjyapāda.[766]
RASARATNĀKARA by Rāmacandra.[767]
RASARATNĀKARA by Revaṇasiddha.[768]

RASARATNĀKARA by Saidapahāra, a treatise written in Hindī.[769] The author was a son of Saida Hamajā, probably a Muslim and a ḥakīm.[770]

RASARATNĀKARA by Śukrapāṇi.[771]
RASARATNĀKARA by Suśruta.[772]

RASARATNAKAUMUDĪ, anonymous.[773] A text of this title was one of the sources of the *Rasayogasāgara*.[774] Syphilis (phiraṅga) is mentioned in this work.[775]

RASARATNAMĀLĀ, anonymous.[776] An unspecified alchemical *Ratnamālā* is quoted in Āśubodha and Nityabodha Senagupta's commentary on the *Rasaratnasamuccaya*.

RASARATNAMĀLĀ by Hari Vaidya of Gurjaradeśa, father of the Devadatta who, in

about the latter part of the fourteenth century, composed a small work called *Ratnamālikā*.[777]

RASARATNAMĀLĀ by Narasiṃha Kavirāja, the guru of Vaidyacintāmaṇi.[778]
RASARATNAMĀLĀ by Siddha Nityanātha.[779]

RASARATNAMAṆIMĀLĀ by Bābābhāī Vaidya.[780] Used as a source in the *Rasayogasāgara*.[781] Quoted in the *Kūpīpakvarasanirmāṇavijñāna*. The work is sometimes assigned to the nineteenth century.[782]

RASARATNAPRADĪPA, anonymous.[783] An unspecified *Rasaratnapradīpa* is one of the sources of the *Pāradasaṃhitā*.
RASARATNAPRADĪPA by Jaṅg Bahādur.[784]
RASARATNAPRADĪPA by Kāmeśvara.[785]
RASARATNAPRADĪPA by Rājarāv.[786]

RASARATNAPRADĪPA by Rāmarāja.[787] This treatise consists of five chapters (adhikāra), dealing with (1) the processing of mercury and the purification and killing of the dhātus, etc., (2–5) rasas and their uses in medicine. The work ends with nāḍīparīkṣā. The arrangement of the diseases agrees with the *Mādhavanidāna*.

The preparation of mineral acids is described in this work.[788]

Sources mentioned by Rāmarāja (1.10) are: Bhagavadgovinda (probably the author of the *Rasahṛdaya*), *Bhavānīmata*, Dāmodara, *Īśahṛdaya*,[789] *Jalasudhāmbhodhi*,[790] *Kākacaṇḍeśvarīmatatantra*,[791] Nāgārjuna, *Saṃsṛtisūtra*,[792] *Sūtamahodadhi*, *Svacchandaśaktyāgama*, Vāsudeva, and Vyāḍi.[793]

The *Rasaratnapradīpa* is quoted in Bhāvamiśra's *Bhāvaprakāśa*, the *Rasakāmadhenu*, Somadevaśarman's commentary on the *Āyurvedaprakāśa*, Ṭoḍara's *Āyurvedasaukhya*, Trimalla's *Yogataraṅgiṇī* and *Bṛhadyogataraṅgiṇī*, Vāgbhaṭa's *Rasaratnasamuccaya*, and the *Yogaratnākara*. It is cited as *Rasaratnadīpikā* in the *Rasayogasāgara*, as *Rasaratnapradīpikā* in the *Rasakāmadhenu*, Somadevaśarman's commentary on the *Āyurvedaprakāśa*, and Hazārīlāl Sukul's commentary on the *Rasaratnasamuccaya*.

The *Rasaratnapradīpikā* is also one of the sources of the *Kūpīpakvarasanirmāṇavijñāna* and *Rasendrasambhava*. The *Ratnapradīpa*, quoted in Trimalla's *Bṛhadyogataraṅgiṇī*, the *Vaidyakasāroddhāra*, and the *Yogaratnākara*, and the *Rasaratnadīpa* of the *Amṛtasāgara* may be identical with Rāmarāja's *Rasaratnapradīpa*. The *Ratnadīpikā* ascribed to Rāmarāja[794] is probably the same work as the *Rasaratnapradīpa*.

Rāmarāja is also credited with a *Rasadīpikā*[795] and *Nāḍīprakāśa*[796] or *Nāḍīparīkṣā*.[797]

Information on the author and his genealogy is found in the introductory verses (1. 4–9). Rāmarāja descends from a king called Hariścandra, who reigned at Kāṣṭhā on the banks of the Yamunā. Hariścandra's son was Sādhāraṇa. This Sādhāraṇa had three sons: Lakṣmaṇasiṃha, Sahajapāla, and Madana.[798] Rāmarāja was the son of king Ratnapāla,[799] a descendant of Madana.

The *Rasaratnapradīpa* was written at the request of someone called Sādhāraṇa, who may have been an elder brother of Rāmarāja.[800]

Dates assigned to Rāmarāja are:[801] between A.D. 1200 and 1500,[802] approximately A.D. 1350,[803] the fifteenth century,[804] A.D. 1420,[805] the fifteenth or sixteenth century,[806] and the seventeenth century.[807]

Rāmarāja should probably be placed in the period A.D. 1400–1550, since he is later than his ancestor Madanapāla and earlier than Bhāvamiśra, who quotes his *Rasaratnapradīpa*.

RASARATNAPRADĪPIKĀ, anonymous.[808]
RASARATNASAMUCCAYA, anonymous.[809]
RASARATNASAMUCCAYA by Bhaṭṭācārya, son of Nṛpasiṃha Gupta.[810]
RASARATNASAMUCCAYA by Lokanātha.[811]

RASARATNASAMUCCAYA by Māṇikyadevasūri.[812]

The author calls his work *Rasāmṛtaśrī* in the introductory verses (1.4) and *Rasaratnasamuccaya* at the end; the colophons refer to it as *Rasāmṛtaśrī*. The treatise deals with alchemical operations and the uses of alchemical preparations for medicinal purposes. It is written in Sanskrit verse of various metres,[813] and is accompanied by explanations in prose. The treatise consists of 146 stanzas, arranged in three chapters (adhikāra).

The subjects of chapter one (rasāṅgasaṃgrahī; 50 verses) are: maṅgala and introduction (1–4); the mahārasas: vaikrānta, amala (= abhraka), sasyaka, adri (= śilājatu), mākṣīka, and ahi[814] (5);[815] the uparasas: kaṅkuṣṭha, gandha (sulphur), añjana, gairika, mṛd (= saurāṣṭrī), (manaḥ)śilā, and ālaka (= haritāla) (5);[816] the dhātus: tāmra (copper), tāra (silver), pittala (brass), nāga (lead), heman (gold), vaṅga (tin), tīkṣṇa (iron), kāṃsyaka (bronze), and vaṭṭaloha (an alloy) (6);[817] the poisonous substances (7); the eight kinds of bile (pitta; 8); the kinds of animal fat (vasā; 8); the pīta-, aruṇa- (= rakta-), sita- (= śveta-), and asitavargas (9); the eight oils of vegetable origin and some ghees (10); the three naisargikadoṣas of mercury: mala, śikhin, viṣa (12); some saṃskāras and related operations (14–26); the purification of mahārasas and alparasas (= uparasas) (27–31); the killing of the metals (32–39); the killing of the black variety of mica (kṛṣṇābhraka; 40–46); the killing of diamonds and other gems (47–48).

Chapter two (rasarahasya; 40 verses) extols the medicinal qualities of alchemically prepared drugs (1–11); a number of rasayogas are described: saṃnipātaripurasa (12–14), vajrahemarasa (17–21), bhūtabhairavarasa (26), bṛhadvaḍavānalarasa (27), a guṭikā (28), vādavīguṭikā (29), cintāmaṇirasa (30–34), kanakavajrarasa (35–37), and chandabhairavarasa (38–39); some yantras (15–16: kacchapa- and bhūdharayantra) and the cakramūṣā (22–25) are discussed too.

Chapter three (56 verses) is concerned with the following rasayogas: tāmrabhairavarasa (4–9), sudhāsūta (10–12), jvarārirasa (13), some other rasas (16–32), hiraṇyagarbharasa (33–39), nāgendrarasa (40–41), viśveśvararasa (42), agnikumārarasa (43–49), and mahābhairavarasa (50–56).

The passages in prose give synonyms of the substances and plants mentioned (ad 1.34, 35, 36–37, 39, 41, 43; 2.30) or details concerning the preparation of particular rasayogas (ad 2.17–21, 28, 29, 30–32; 3.4–5, 18, 19, 24–25, 26, 30, 54–55, 56).

Authorities referred to are Govinda and Vyāḍi (2.6).

Sources mentioned are the *Rasārṇava* and *Rasāvaloka* (2.6). *Rasarahasyodadhi* and *Rasopaniṣad*, mentioned at the end of chapter two (2.40) may also be titles of works consulted by the author.

A cakramūṣā, not known from other treatises, is described (2.22–25) and referred to (2.20; prose ad 2.17–21). A maṭhākhyayantra, otherwise unknown, is mentioned (2.13). The author was acquainted with the agnīṣomābhidhayantra (3.50).[818]

The author mentions his name as Māṇikyadeva in the introductory verses (1.4), at the end of chapter one (1.50), and at the end of the work; he refers to himself as Māṇikyendu at the end of chapter two (2.40).

The name of his teacher, Devacandra, appears at the end of chapters one and three. Another instructor may have been Pārśvadevasūri (1.4).

Māṇikyadeva was a Jain, as is evident from the maṅgala verses, addressed to the Tīrthaṅkaras Ṛṣabha and Neminātha (= Ariṣṭanemi), a verse about ahiṃsā (1.11), and the colophons.

J.C. Sikdar[819] asserts that the author belonged to the Vaṭagaccha of Śvetāmbara Jains and was the pupil of Devasūri or Devacandrasūri, the second ācārya of the Vaṭagaccha.

J.C. Sikdar is of the opinion that Māṇikyadeva lived from A.D. 1268 to 1327.[820] The same author assigned Māṇikyadeva to the sixteenth century in an earlier article.[821] He regards him as identical with the Māṇikyacandra who composed the mahākāvya *Nalāyana* or *Kuberapurāṇa*.[822]

RASARATNASAMUCCAYA by Nityānanda(?).[823]

RASARATNASAMUCCAYA by Nityanāthasiddha.[824] The attribution of this work to Nityanātha may be based on a confusion with the *Rasaratnākara*.[825]

RASARATNASAMUCCAYA by Śaṃkara.[826] Śaṃkara is also credited with a *Rasarāja*.
RASARATNASAMUCCAYA by Siddharātri(?).[827]
RASARATNASAMUCCAYA by Somadeva.[828]
RASARATNASĀRA by Vyāsalakṣmīdhara, son of Someśvara.[829]
RASARATNASĀRASAṂGRAHA.[830]
RASARATNĀVALĪ, unspecified.[831]
RASARATNĀVALĪ by Bhāgīratha.[832]
RASARATNĀVALI by Candrarājakavi.[833]
RASARATNĀVALĪ by Gurudattasiddha.[834]

RASĀRṆAVA by Nāgārjuna.[835] Mentioned as one of the sources of the *Rasayogasāgara*.

RASĀRṆAVA by Siddharājayogin.[836]

RASĀRṆAVAKALĀ.[837]

RASASĀGARA.[838] This is an exhaustive treatise in several chapters (khaṇḍa). The two chapters that have been preserved deal with metallic and mineral preparations (rasakhaṇḍa) and vegetable decoctions (kvāthakhaṇḍa).[839]

A *Rasasāgara* is quoted in Dattarāma's *Bṛhadrasarājasundara*,[840] Hazārīlāl Sukul's commentary on the *Rasaratnasamuccaya*, the *Kūpīpakvarasanirmāṇavijñāna*, Niścalakara's *Ratnaprabhā*, the *Bhāratabhaiṣajyaratnākara*,[841] *Rasarājalakṣmī*, *Rasayogasāgara*,[842] and Ṭoḍara's *Āyurvedasaukhya*.[843] A *Rasasāgara* in Hindī was one of the sources of the *Pāradasaṃhitā*.

RASASĀGARA by Kṣemāditya, son of Ghanāditya.[844] Used as a source in the *Rasayogasāgara*.

RASASAṂGRAHA.[845] A *Rasasaṃgraha* is referred to in the *Amṛtasāgara*.

RASASAṂGRAHASIDDHĀNTA, anonymous.[846]

RASASAṂGRAHASIDDHĀNTA by Acyuta, son of Dharaṇi Goṇiga, son of Mahādeva, son of Soma, son of Hari, of the family of minister Nādiga, a Nāgara.[847] Acyuta is sometimes regarded as the teacher of Somadeva, the author of the *Rasendracūḍāmaṇi*.[848]

RASASAṂGRAHASIDDHĀNTA by Govindarāma Ṭhākura,[849] son of Veṇīdatta and a resident of Naḍīyāḍa and Kāśī.[850] This elaborate treatise in eleven chapters was composed in A.D. 1793/94.[851] It is based on *Rasacintāmaṇi*, *Rasahṛdaya*, *Rasalakṣmīvilāsa*, *Rasamañjarī*, *Rasārṇava*, etc.[852] The *Rasayogasāgara* mentions this work as one of its sources.[853] It is quoted in the *Kūpīpakvarasanirmāṇavijñāna*.

RASASAṂJĪVANEŚVARA by Harihara.[854] A *Rasasaṃjīvana* is mentioned among the sources of the *Ratnākarauṣadhayogagrantha*.

RASAŚAṂKARA by Śaṃkara.[855] The *Rasaśaṃkara* was one of the sources of Dattarāma's *Bṛhadrasarājasundara*.[856] A Śaṃkara is also credited with the *Rasarāja* and a *Rasaratnasamuccaya*.

RASASAṂSKĀRA.[857]
RASASĀRA by Kṣemāditya.[858]

RASASĀRĀMṚTA by Rāmasena. This work is about pharmaceutical preparations of mercury and other metallic substances; it ends with a chapter on aphrodisiacs (vṛṣyādhikāra).

Sources are the treatises of Gahanānandanātha, Nityanātha and Śālinātha.[859]

An author called Rāmasena is quoted in Āśubodha and Nityabodha Senagupta's commentary on the *Rasaratnasamuccaya*.

RASASĀRASAṂGRAHA, anonymous.[860] A *Rasasārasaṃgraha* is one of the sources of the *Rasayogasāgara*[861] and may be quoted in the *Yogaratnākara*.

RASASĀRASAṂGRAHA by Gaṅgādharapaṇḍita.[862] This short treatise describes mercurial preparations and their medicinal uses.[863]

RASASĀRASAṂGRAHA by Kālidāsa.[864]

RASASĀRASAMUCCAYA.[865] This work is similar to the *Rasaratnasamuccaya*; it is followed by explanatory notes in Telugu.[866]

RASASĀRATILAKA by Rasendratilaka Yogin.[867] Rasendratilaka is a Rasasiddha in the *Pāradasaṃhitā* and *Rasaratnasamuccaya*.

RASASĀRODDHĀRAPADDHATI.[868] Quoted in the *Kūpīpakvarasanirmāṇavijñāna* and *Pāradasaṃhitā*.

RASASARVEŚVARA[869] by Vāsudeva.[870] Vāsudeva is one of the Rasasiddhas in the *Pāradasaṃhitā* and *Rasaratnasamuccaya*.[871]

RASASARVEŚVARADARŚANA.[872]
RASAŚĀSTRA.[873]
RASAŚĀSTRASĀRASAṂGRAHA, anonymous.[874]
RASAŚĀSTRASĀRASAṂGRAHA by Dattātreyavaidya.[875]
RASASIDDHĀNTA.[876] A *Rasasiddhānta* is quoted in Ṭoḍara's *Āyurvedasaukhya*.[877]
RASASIDDHĀNTASĀGARA.[878]
RASASIDDHĀNTASAṂGRAHA.[879]
RASASIDDHĀNTAŚĀSANA.[880]
RASASIDDHI.[881]
RASASIDDHIPRAKĀŚA, anonymous.[882]

RASASIDDHIPRAKĀŚA by Mādhavabhaṭṭa.[883] The author may have been a relative of Mādhava Upādhyāya, who wrote the *Āyurvedaprakāśa*, for both were born in Saurāṣṭradeśa from a Sārasvata family. The first chapter of the work describes mercury, its origin, purification, etc.; the second chapter is about the uparasas.[884] The *Rasasiddhiprakāśa* quotes the *Rasapaddhati* and is therefore probably later than the first half of the seventeenth century.[885]

RASASIDDHIPRAKĀŚA by Viṣṇugirijī of Kacha.[886]

RASASIDDHIŚĀSTRA. This treatise, ascribed to Vyāḍipāda (Bha-li-pa), and lost in the original Sanskrit, was translated into Tibetan under the title of *Dṅul-chu grub-paḥi*

bstan-bcos. The Tibetan version, mentioned in the catalogue of the Tanjur, has not been preserved. The translators were Narendrabhadra of India and the Tibetan Rin-chen dpal (Ratnaśrī) of Oḍḍiyāna.[887]

The treatise called *Rasāyanaśāstroddhṛti* may have formed part of the *Rasasiddhiśāstra*.[888]

RASASINDHU, anonymous.[889] A *Rasasindhu* is one of the sources of the *Pāradasaṃhitā*; it is quoted in the *Bṛhadrasarājasundara* and Somadevaśarman's commentary on the *Āyurvedaprakāśa*.

RASASINDHU by Viṣṇu.[890]

RASASINDHU by Viṭṭhala,[891] son of Mahādevagalagaṇḍa.[892] Chapter one is called rasaśodhanajāraṇādhikāra, chapter three rasagrahaṇajalayogādhikāra; the title of another chapter is dūtādilakṣaṇādhikāra.[893]

The introductory verses indicate that this work also deals with therapy.[894]

Authorities and works quoted are:[895] *Bhavānīmata*, *Kākacaṇḍeśvaramata*, Nīlakaṇṭha, *Rasacandrikā*, *Rasadarpaṇa*, *Rasadīpikā*, *Rasāmṛta*, *Rasamuktāvalī*, *Rasarahasya*, *Rasarājalakṣmī*, *Rasaratnākara*,[896] *Rasaratnāvalī*, *Rasārṇava*, *Rasendramaṅgala*, *Śrīmadauma*,[897] *Sūtamahodadhi*, *Svacchandaśaktyāgama*, and *Svasaṃvedya*.[898] To this series should be added:[899] *Ānandānubhava*, Dāmodara, *Kāmadevabhavānīmata*,[900] *Kāmarājarasadīpikā*,[901] *Kulāgama*,[902] Lokanātha, *Nakṣatramālā*, *Rasamahodadhi*, *Rasapaṭala*, *Rasārṇava* of Pareśa, *Rasendracūḍāmaṇi*, *Ratnāvalī*, Siddhanāgārjuna, *Śrīmata*, *Sūtārṇava*, Vaidyanātha, *Vāsudevānubhava*, Vyāḍi, and *Yāmalatraya* of Keśava.[903]

The *Rasasindhu* is quoted in the *Rasendrapurāṇa*, Ṭoḍara's *Āyurvedasaukhya*, Trimalla's *Yogataraṅgiṇī* and *Bṛhadyogataraṅgiṇī*, and the *Yogaratnākara*.

The quotations from the *Rasarājalakṣmī*, another work of Viṭṭhala, also called Viṣṇudeva, prove that the *Rasasindhu* was written after the completion of the former work.

RASASINDŪRA.[904]
RASASINDŪRĀDINIRMĀṆAVIDHI.[905]
RASASINDŪRAYOGAKRAMĀNUPĀNAVICĀRA.[906]
RASAŚODHANA.[907]
RASAŚODHANAVIDHI by Nityanātha.[908]
RASAŚUDDHI.[909]
RASAŚUDDHIVIDHĀNA.[910]
RASASUDHĀKARA.[911]

RASASUDHĀMBHODHI.[912] This work was one of the sources of Viṣṇudeva's *Rasarājalakṣmī*.

RASASUDHĀNIDHI by Vrajarāja Śukla.[913]

RASASŪTRĀBHIDHĀNA:[914] an anonymous text on the origin of mercury from the semen of Śiva.[915] *Rasasūtrābhidhāna* is the title of one of the chapters of Maṅgalagiri's *Sūtrasthāna*.[916]

RASASŪTRASTHĀNA.[917]

RASASVACCHANDA.[918] Svacchanda(bhairava) is often referred to and quoted in works on rasaśāstra.[919] Several Tantric works are called after Svacchanda(bhairava).[920]

RASATANTRA by Guha.[921] This work, said to consist of 6,000 verses, is mentioned in the *Gorakṣasaṃhitā*.[922]

RASATANTRA by Vīrabhadra.[923] This work, in 1,000 verses, is referred to in the *Gorakṣasaṃhitā*.[924]

RASATANTRASAṂGRAHA.[925]

RASATANTRASĀRA. This work, otherwise unknown, is one of the sources of the *Rasendrasambhava*.

RASATANTRĀVALĪ by Gurudatta Siddha.[926]
RASATARAṄGAMĀLIKĀ by Janārdanabhaṭṭa.[927]
RASATARAṄGIṆĪ by Bhānudatta Miśra.[928]
RASATATTVASĀRA.[929]

RASATATTVAVIVECANA by Ambikādatta Śāstrī.[930] This useful and systematic work, written in Hindī, with a profusion of quotations from Sanskrit texts, mentions the following sources: *Ānandakanda*, *Āyurvedaprakāśa*, *Bhāvaprakāśa*, *Bṛhadyogataraṅgiṇī*, *Dhanvantarisaṃhitā*, *Kāmaratna*, *Nighaṇṭuratnākara*, *Pāradasaṃhitā*, *Rasacintāmaṇi*, *Rasadarpaṇa*, *Rasahṛdaya* and its commentary, *Rasakāmadhenu*, *Rasamānasa*, *Rasamārtaṇḍa*, *Rasapaddhati*, *Rasaprakāśasudhākara*, *Rasarājapaddhati*, *Rasarājasundara*, (Nityanātha's) *Rasaratnākara*, *Rasaratnasamuccaya*, *Rasārṇava*, *Rasasāra*, *Rasataraṅgiṇī*, *Rasendracintāmaṇi*, *Rasendracūḍāmaṇi*, *Rasendramaṅgala*, *Rasendrasārasaṃgraha*, *Rasopaniṣad*, *Rudrayāmala*, *Śaktyavatāra*, *Śārṅgadharasaṃhitā*, *Ṭoḍarānanda*, *Vaidyakalpadruma*, *Yogaratnākara*, and *Yogataraṅgiṇī*.

RASAUṢADHACIKITSĀ.[931]
RASAUṢADHALEHYAVIDHĀNA.[932]
RASAUṢADHAVIDHĀNA.[933]
RASAUṢADHIVARGAPRAKARAṆA.[934]
RASAVĀDA.[935]

RASAVĀGBHAṬA.[936] This work is one of the sources of the *Pāradasaṃhitā*; it is quoted in the *Rasakāmadhenu*.

Rasavaidya.[937]
Rasavaidyaka.[938]
Rasavaiśeṣika, anonymous.[939]
Rasavaiśeṣika by Vellālagopāla.[940]
Rasavallarī.[941]

Rasāvaloka by Śukrācārya.[942] This work, in 6,000 verses, is mentioned in the *Gorakṣasaṃhitā*[943] and Māṇikyadeva's *Rasaratnasamuccaya*. Śukra or Śukrācārya is a Rasasiddha in the *Rasajalanidhi*.[944] A particular method of killing iron (lohamāraṇa), resulting in a product called śukralauha, was taught by Śukra to his disciple Ādima.[945]

Rasavāridhi by Māṇḍavya.[946]
Rasavarṇa.[947]
Rasavarṇana.[948]

Rasāvatāra.[949] Quoted in one of the pariśiṣṭas of the *Ānandakanda*,[950] Caturbhuja's commentary on the *Rasahṛdaya*, Khare's commentary on the *Rasaratnasamuccaya*, the *Kūpīpakvarasanirmāṇavijñāna*, and Ṭoḍara's *Āyurvedasaukhya*. Mentioned as one of the sources of the *Pāradasaṃhitā* and *Rasayogasāgara*.[951]

Rasāvatāra by Māṇikyacandra Jaina.[952] Recorded among the sources of the *Rasayogasāgara*.[953] Quoted in the *Kūpīpakvarasanirmāṇavijñāna*. The work is placed in the fourteenth or fifteenth century.[954]

Rasavidhāna.[955]
Rasavidyā.[956]
Rasavidyādīkṣāvidhāna.[957]

Rasavidyāmahārṇava, compiled by Raghunātha Śāstrin.[958] Sources of this work are: *Pāradasaṃhitā*, *Rasajalanidhi*, *Rasapaddhati*, *Rasaprakāśasudhākara*, *Rasarājamahodadhi*, *Rasaratnākara*, *Rasaratnasamuccaya*, *Rasāyanataraṅgiṇī*, *Rasendracintāmaṇi*, and *Rasendrasārasaṃgraha*.

Rasavidyāratna by Śivānanda Yogin.[959]
Rasavidyāsāroddhāra.[960]
Rasavinoda.[961]
Rasaviśvadarpaṇa by Harihara.[962]
Rasaviveka.[963]
Rasayāmala.[964] A *Rasayamala* is quoted in Vaidyacintāmaṇi's *Prayogāmṛta*.
Rasāyana.[965]
Rasāyanakalpadruma by Rāmakṛṣṇa Bhaṭṭa.[966]
Rasāyanakāvya by Nāthurāma.[967]
Rasāyananidhāna.[968]
Rasāyananirmāṇavidhi.[969]

Rasāyananirūpaṇa.[970]
Rasāyanānupāna.[971]
Rasāyanaparīkṣā.[972] Recorded among the sources of the *Rasayogasāgara*.
Rasāyanaprakaraṇa by Merutuṅga.[973]
Rasāyanaprakāśa.[974]
Rasāyanaprakriyāsaṃgraha.[975]
Rasāyanarāseśvarārādhanavidhi.[976]

Rasāyanasaṃgraha.[977] Sources quoted are: *Cikitsāsāgara*, *Laghuyogataraṅgiṇī*, *Motiyogataraṅgiṇī*, *Rasakaumudī*, *Rasamañjarī*, *Rasaratnadīpa*, *Rasaratnākara*, *Rasasaṃketakalikā*, *Rasasāra*, *Rasāyanādhyāya*, *Rasendracintāmaṇi*, Śārṅgadhara, *Vaidyamanotsava*, *Vaidyarahasya*, and *Vaidyavilāsa*.[978]

The *Rasāyanasaṃgraha* is quoted in the *Āyurvedīya Khanijavijñāna*.

Rasāyanasaṃgraha, compiled by Kṛṣṇaśāstrī Bhāṭavaḍekar.[979] Mentioned as one of the sources of the *Rasayogasāgara*.[980] Quoted in the *Kūpīpakvarasanirmāṇavijñāna*.

Rasāyanasaṃhitā by Svāmin Prabodhānanda.[981]
Rasāyanaśāstra.[982]

Rasāyanaśāstroddhṛti: a treatise lost in its Sanskrit original, rendered into Tibetan under the title of *Gser-ḫgyur-gyi bstan-bcos (bsdus-pa)*, or, in Sanskrit, *Dhātuvādaśāstra(saṃgraha)*.[983]

The subjects dealt with in the treatise, consisting of forty-four verses, are: the qualities (yon-tan) of mercury (dṅul-chu) and mica (lhaṅ-cher) (4–5); the preparation of a copper polish (6–7); the amalgamation of mercury with silver and gold (8); the bandha of mercury (9); the preparation of gold-coloured polishes by means of the three rarest substances or their substitutes (10–12); aurifaction (13–16); varieties of copper (17); gold- or silver-coloured polishes on copper and lead (18–19); other polishes (20–21); the qualities of gold (22–23); a polish (24); the preparation of powdered gold (25–26); the purification of copper and steel (ḫod-ldan-lcags) (27–29); the purification of brass (30), bronze (31), lead (32–35) and zinc (36–37); purification in general (38–39); the impurities of gold (40–41); the powers of the Siddhas (42); the preparation of a polish on iron (43–44).

An authority referred to is Candrapakṣa (6: Zla-baḫi phyogs).

The name of the translator is Ratnaśrī, also called O-rgyan-pa.[984]

The *Rasāyanaśāstroddhṛti* may have formed part of Vyāḍipāda's *Rasasiddhiśāstra*.[985]

Rasāyanataraṅgiṇī.[986] This treatise, similar to the *Rasaratnākara*, is divided into chapters called taraṅga; it describes the origin and purification of mercury, alchemical processes regarding gold and the other dhātus, etc.; poisons, aphrodisiacs, oils and ghees are also dealt with.[987]

The *Rasāyanataraṅgiṇī* was one of the sources of the *Rasavidyāmahārṇava*.

RASĀYANAVIDHĀNA.[988]
RASĀYANAVIDHI.[989]
RASĀYANAVIDHI by Nīlakaṇṭha.[990]
RASĀYANAVIVARAṆA.[991]
RASAYOGAMUKTĀVALĪ, anonymous.[992]
RASAYOGAMUKTĀVALĪ by Narahari Bhaṭṭa.[993]

RASENDRA.[994] A *Rasendra* is quoted in Hazārīlāl Sukul's commentary on the *Rasaratnasamuccaya.*

RASENDRABHAIRAVA by Bhairava.[995]
RASENDRABHĀṆḌĀGĀRA by Rasendranātha.[996]

RASENDRABHĀSKARA by Siddha Bhāskara.[997] Bhāskara is one of the Rasasiddhas in the *Pāradasaṃhitā, Rasajalanidhi, Rasaratnasamuccaya, Rasataraṅgiṇī,* and *Rasendrasambhava.*

RASENDRABHĀSKARA by Lakṣmīnārāyaṇa Śarman.[998]
RASENDRACINTĀMAṆI by Anantadevasūri.[999]
RASENDRACINTĀMAṆI by Bhagadeva Sūri.[1000]
RASENDRACŪḌĀMAṆI, anonymous.[1001]
RASENDRACŪḌĀMAṆI by Nakiṃcideva.[1002]

RASENDRAKALPADRUMA by Rāmakṛṣṇabhaṭṭa, son of Nīlakaṇṭhabhaṭṭa.[1003] This work is variously described: it consists of two sections (kāṇḍa), divided into several chapters (adhyāya); the first section (rasakāṇḍa) is about alchemical processes, and the second (prayogakāṇḍa) about the employment of inorganic compounds in various diseases.[1004] Another description runs as follows: it consists of two sections, called saṃskāra- and prayogakāṇḍa; the saṃskārakāṇḍa is arranged in six chapters, dealing with (1) rasaśuddhi, (2) mūrchā, (3) bandhana, (4) māraṇa, (5) abhrādisaṃskāra, (6) svarṇādisaṃskāra, prastāra, and yantras.[1005] A third author describes it as an exhaustive treatise in four sections, called respectively śuddhi-, mūrchā-, māraṇa-, and bandhakāṇḍa; it is said to give a detailed description of furnaces, retorts, etc.[1006]

The *Rasendrakalpadruma* is a compilation, containing numerous quotations from *Rasamaṅgala, Rasāmṛta, (Rasa)ratnākara, Rasaratnasamuccaya,* and *Rasārṇava.*[1007] Much of its material agrees closely with the *Rasendracintāmaṇi.*[1008]

Rāmakṛṣṇabhaṭṭa wrote an auto-commentary, called *Vaidyaratnākara,* on his *Rasendrakalpadruma.*[1009]

The work is quoted in the *Bṛhadrasarājasundara, Kūpīpakvarasanirmāṇavijñāna, Pāradasaṃhitā,* Vaidyarāja's *Sukhabodha,*[1010] and Hazārīlāl Sukul's commentary on the *Rasaratnasamuccaya;* it is one of the sources of the *Rasayogasāgara.*

The author may have been the father of Rāmakavi, who wrote the *Śṛṅgārarasodaya.*[1011] One of Rāmakṛṣṇabhaṭṭa 's pupils was Narasiṃha Kavirāja, the author of a number of medical treatises.[1012]

The *Rasendrakalpadruma* is assigned to the fourteenth,[1013] fifteenth,[1014] or sixteenth century,[1015] but actually belongs to the middle or second half of the seventeenth century, because the author's father, Nīlakaṇṭha, lived in the period A.D. 1610–1645.[1016] This chronological position is confirmed by the date of his pupil Narasiṃha Kavirāja, who flourished in the first half of the eighteenth century.

RASENDRAPAṬALA.[1017]

RASENDRARATNAKOṢA by Deveśvara Upādhyāya.[1018] Recorded among the sources of the *Rasayogasāgara.*[1019]

RASENDRASAṂHITĀ.[1020] Quoted in the *Bṛhadrasarājasundara,*[1021] *Rasakāmadhenu,*[1022] and Trimalla's *Yogataraṅgiṇī.* Recorded among the sources of the *Rasayogasāgara.*[1023]

RASENDRASAMPRADĀYA by Paṇḍit Hazārīlāl Sukul.[1024]
RASENDRASAMUTPATTI.[1025]
RASENDRASĀRASAṂGRAHA, anonymous.[1026]
RASENDRASĀRASAṂGRAHA by Kṛṣṇacandravaidya.[1027]

RASENDRASURAPRABHĀVA by Sūrasena.[1028] Śūrasenaka is one of the Rasasiddhas in the *Pāradasaṃhitā, Rasaratnākara,* and *Rasaratnasamuccaya.*[1029]

RASENDRATILAKA by Kāyastha Cāmuṇḍa.[1030]
RASENDRAVAIDYA.[1031]

RASENDRAVIJÑĀNA by Kavirāja Śrīrāmādarśa Siṃha.[1032] The seven chapters of this recent work deal with: (1) rasa, its śodhana and māraṇa, and the preparation of sindūra; (2) uparasas; (3) dhātus; (4) lohas; (5) ratnas and uparatnas; (6) rasāyana; (7) kṣārāmla and lavaṇa.

RASENDRAYOGA.[1033]
RASENDRODAYA.[1034]
RASENDUŚEKHARA.[1035]
RASENDUTILAKA.[1036]
RASEŚVARANIDHI.[1037]

RASEŚVARASIDDHĀNTA.[1038] One of the quotations from this work, found in the *Sarvadarśanasaṃgraha* (9.7–9), mentions as Siddhas who attained jīvanmukti: Carvaṭi, Govindabhagavatpāda, Govindanāyaka,[1039] Kandalāyana, Kāpāli, Kapila, king Someśvara, and Vyāli.

G. Hāldār asserts that this treatise was written by Somadeva, the author of the *Rasendracūḍāmaṇi,* in collaboration with his teacher, Acyuta, the son of Goṇikā.[1040]

RASODAYA by Vināyaka.[1041] This work, in 8,000 verses, is mentioned in the *Gorakṣasaṃhitā*.[1042]

RASODDHĀRATANTRA. This work, also called *Rasasaṃhitā*, is a iatrochemical treatise in Sanskrit verse and prose, composed by Caraṇatīrtha Mahārāja (i.e., Jīvrām Kālidās).[1043] The Gujarātī version of its Cikitsākhaṇḍa, also called *Upacārapaddhati*, was very well received. A Hindī version has also been published.[1044]

The Hindī version deals with the aetiology, symptomatology and treatment, mainly by means of rasayogas, of the diseases. Sanskrit verses from the *Rasoddhāratantra* and some other treatises[1045] are interspersed among the Hindī prose.

The work is said to be based on the following sources: *Aṣṭāṅgahṛdaya*, *Āyurvedaprakāśa*, *Bhaiṣajyaratnāvalī*, *Bhāvaprakāśa*, *Bṛhannighaṇṭuratnākara*, *Cakradatta*, *Carakasaṃhitā*, *Gadanigraha*, *Rasakāmadhenu*, *Rasaprakāśasudhākara*, *Rasarājasundara*, (Nityanātha's) *Rasaratnākara*, *Rasaratnasamuccaya*, *Rasendracintāmaṇi*, *Rasendrasārasaṃgraha*, *Śārṅgadharasaṃhitā*, *Suśrutasaṃhitā*, *Vaidyajīvana*, *Vaṅgasena*, *Vṛndamādhava*, *Yogaratnākara*, and *Yogataraṅgiṇī*.

Additional sources referred to are the *Bṛhadyogataraṅgiṇī* and *Yogaśataka*.

The Sanskrit text of the bhasmapiṣṭiprakaraṇa of the *Rasoddhāratantra*, accompanied by some comments, is reproduced towards the end of the work. It deals with the preparation and medicinal uses of the bhasman (ashes) and piṣṭi of the following substances: akīka (agate; 1–4),[1046] abhraka (mica; 5–18), abhrakasattva (19–28), kāntapāṣāṇa (29–32), kāntaloha (33–47), kāsīsa (48–51), kāsīsa and godantī[1047] (52–54), kukkuṭāṇḍatvac (eggshells; 55–56), kāṃsya (57–62), kharpara (63–66), godantī (67–69),[1048] gomeda (70–73), caturvaṅga (74–79),[1049] jaharamoharā (80–85),[1050] tāmra (copper; 86–97), tuttha (98–100), trivaṅga (101–105),[1051] tṛṇakāntamaṇi (106–109),[1052] nāga (lead; 110–115), indranīla (sapphire; 116–129), marakata (emerald; 130–142), pittala (143–148), puṣparāga (topaz; 149–157), pañcaloha or vartaloha (158–167), pravāla (coral; 168–175), vaṅga (tin; 176–181), mayūrapicchā (peacock's feathers; 182–185), gaurīpāṣāṇa (186–192), māṇikya (ruby; 193–199), mākṣikasattva (200–204), muktā (pearls; 205–221), maṇḍūra (222–226), mṛgaśṛṅga (deerhorn; 227–234ab), yaśada (zinc; 234cd–240), rajata (silver; 241–250), loha (iron; 251–255), lohābhra (256–259ab),[1053] varāṭikā (259cd–265), vajra (diamond; 266–272), vaikrānta (273–276),[1054] vaiḍūrya (277–286), śukti (287–288), śaṅkha (289–294), saptaratna and navaratna (296–310), suvarṇa (gold; 311–315), svarṇamākṣika (316–323), saṅgeyaśaba (jade; 324–327), sphāṭika (328–332),[1055] haritāla (333–344), and hiṅgula (345–349).

Sources quoted or referred to in this section are: *Āyurvedaprakāśa*, *Bṛhadyogataraṅgiṇī*, Govindapādāḥ (the author of the *Rasahṛdaya*), *Rasaprakāśasudhākara*, (Nityanātha's) *Rasaratnākara*, *Rasaratnasamuccaya*, *Rasataraṅgiṇī*, and *Yogaratnākara*.

The author repeatedly points to his own experiences in the bhasmapiṣṭiprakaraṇa.

Unusual names of disorders mentioned in the Hindī text are: aṃśughāta (p.402), durjalajanyaroga (p.266–267), jalodara of the head (p.215), mūḍhamāra (p.262–263), and mūtrapiṇḍa (p.301–302).

Uncommon diseases mentioned in formulae from the *Rasoddhāratantra* in the *Bheṣajasaṃhitā* are: gajagraha (1, nr. 49), hṛddāha (7, nr. 78), kaṣṭārtava (6, nrs. 19, 23, 76), phupphusagada (6, nr. 105), phupphusottharoga (1, nr. 84), mūtrapiṇḍa (6, nr. 35), smaronmāda (6, nr. 85), and snāyubhraṃśa (6, nr. 16). One formula (6, nr. 49: candreśvarīguṭikā) is said to derive from Gorakṣanātha.

RASOPANIṢAD by Umā.[1056] This work, said to consist of 6,000 verses, is mentioned in the *Gorakṣasaṃhitā*.

RASOPARASANIGHAṆṬU.[1057]

RASOPARASAŚODHANA.[1058] This work gives an account of the purification of mercury and other rasas and uparasas for converting them into medicines.[1059]

RASOTPATTI.[1060]
RASOTPATTIVIDHI.[1061]
RATNADHĀTUVIJÑĀNA by Badrīnārāyaṇa Purohita.[1062]
RATNĀDIPARĪKṢĀ.[1063]
RATNADĪPA by Kāśīrāma.[1064]
RATNADĪPIKĀ.[1065] A work of this title is quoted in Ṭoḍara's *Āyurvedasaukhya*.
RATNADĪPIKĀ by Bhaḍeśvara.[1066]

RATNADĪPIKĀ by Caṇḍeśvara.[1067] This treatise, in about 200 verses,[1068] arranged in ten chapters (jyotis), describes precious and semi-precious stones.

The subjects of the chapters are: (1; 61 verses) maṅgala (1.1), introduction (1.2–3), the five major (mahāratna)[1069] and minor (uparatna) gems[1070] and their colours (1. 5–8); the diamond (vajra; 1.9–61);[1071] (2; 26 verses) the pearl (mauktika);[1072] (3; 24 verses) the ruby (māṇikya);[1073] (4; 15 verses) the sapphire (nīla);[1074] (5; 35 verses) the emerald (marakata);[1075] (6; 6 verses) the zircon (gomeda);[1076] (7; 8 verses) the stones called sphaṭika (rock crystal), bhasmanāṅgaka,[1077] gāruḍodgāra,[1078] tārkṣya,[1079] garuḍamaṇi,[1080] āstikya,[1081] and sauvarṇarekhāmaṇi;[1082] (8; 6 verses) the cat's eye (vaiḍūrya) and topaz (puṣparāga);[1083] (9; 4 verses) coral (pravāla);[1084] (10; 10 verses) some properties of the stones described and their relationships with the nine grahas.[1085]

The author discusses the places where each gem is found, its colours and other characteristics, types, good qualities and blemishes, uses, beneficial effects when worn, and the ascertainment of its value.

The five major gems are: diamond, pearl, ruby, sapphire and emerald; the minor gems are zircon, topaz, cat's eye and coral.

Four types, called after the four varṇas (brāhmaṇa, kṣatriya, vaiśya, śūdra) are distinguished of the diamond, ruby, sapphire, emerald and zircon.

A variety of the ruby is called kuruvindaka. Rock crystal (sphaṭika) is said to be of three varieties.

Authorities mentioned are Agastya, Nārada, Varāha,[1086] and Vyāsa (1.4 and 10.10).

The *Ratnadīpikā* is quoted in Ṭoḍara's *Āyurvedasaukhya*.[1087]

The author mentions his name in the introductory verses, but does not give any

information on his genealogy. V.W. Karambelkar, as well as Gairolā and T. Jhā, identify him as the author of a Smṛti digest called *Ratnākara*, divided into seven sections (kṛtya, dāna, vyavahāra, śuddhi, pūjā, vivāha, gṛhastha). The author of this work was the son of Vīreśvara and belonged to the Ṭhakkura family. Caṇḍeśvara is also credited with a *Rājanītiratnākara*.[1088] Other works attributed to him are[1089] the *Vivādaratnākara*,[1090] *Kṛtyacintāmaṇi*,[1091] *Dānavākyāvalī*,[1092] and *Śivavākyāvalī*.[1093]

Caṇḍeśvara's literary activity belongs to the fourteenth century.[1094]

RATNĀKARA.[1095]
RATNAKUTŪHALA.[1096]
RATNALAKṢAṆA.[1097]
RATNAMĀLĀ by Paśupati.[1098]
RATNAPARĪKṢĀ.[1099]

RATNAPARĪKṢĀ by Buddhabhaṭṭa or Buddhabhaṭa, also called *Buddhabhaṭīyaratnaśāstra*,[1100] This treatise,[1101] in about 225 verses, arranged in nine chapters, deals with: (1) the origin of gems (2–15); the diamond (vajra; 16–48); (2) the pearl (mauktika; 1–60); (3) the ruby (padmarāga; 1–31); (4) the emerald (marakata; 1–29); (5) the sapphire (indranīla; 1–20); (6) the cat's eye (vaiḍūrya; 1–16);[1102] (7) the chrysoberyl (karketana; 1–3); (8) the garnet (pulaka; 1–3);[1103] (9) coral (vidruma; 1–4).

The author describes the mythical origin of each gem, the places where it is found, its characteristics, blemishes, curative and other properties, the ascertainment of the value, etc. Stones resembling the real ones, but much less in value, as well as counterfeit gems, are also discussed.[1104]

The four types of diamonds, called after the varṇas (brāhmaṇa, kṣatriya, vaiśya, śūdra), are known to the author; the other gems are not classified after this model.

Buddhabhaṭṭa is referred to as an authority on gems in Ṭhakkura Pherū's *Rayaṇaparikkhā*. Buddhabhaṭṭa's *Ratnaparīkṣā* is mentioned in Merutuṅga's *Prabandhacintāmaṇi*.[1105] The *Ratnaparīkṣā* quoted in Somadeva's *Yaśastilaka* is Buddhabhaṭṭa's work.[1106]

The *Garuḍapurāṇa* (chapters 68–80) incorporated the whole text of Buddhabhaṭṭa's work; the version forming part of the *Garuḍapurāṇa* has two extra chapters, on puṣparāga (topaz; 74) and bhīṣmaratna (a kind of quartz; 76).

The author, Buddhabhaṭ(ṭ)a, who mentions his name in the introductory verses and at the end of his work, is by some regarded as a Buddhist,[1107] although no traces of Buddhism are found in the text of edition b; on the contrary, all the allusions to mythology are inspired by Hindu traditions.

Clues to Buddhabhaṭṭa's chronological position are rare. Some assign him to the close of the fifth or the beginning of the sixth century,[1108] others to the seventh or eighth,[1109] or to the twelfth century.[1110] The reference to Buddhabhaṭṭa in Ṭhakkura Pherū's *Rayaṇaparikkhā* establishes that the former is earlier than the beginning of the fourteenth century.

The contents of Buddhabhaṭṭa's treatise are said to resemble those of the chapters on the same subject (80–83) of the *Bṛhatsaṃhitā*; L. Finot supposed them to be based on a *Ratnaśāstra* anterior to the sixth century.[1111]

RATNAPARĪKṢĀ by Īśvaradīkṣita.[1112] This work, in 105 verses, interspersed with some prose, quotes from and refers to the following sources: Agastya (2), *Āgastya* (92), *Āgastyaratnaśāstra* (11), *Āṅgīrasamata* (84), *Bhāradvājasmṛti* (22), *Nighaṇṭu* (33), *Ratnasārasaṃgraha* (81), *Ratnaśāstra* (8; 68), *Utpalaparimala* (34),[1113] *Vāhaṭa* (41), and *Viśvakarmīya* (70; 91).

The arrangement of the contents is very unsystematic. Mythological tales about the origin of gems abound.

Some subjects dealt with are: gems to be discarded due to the presence of particular defects (20cd–22a), the seven defects of gems: bindu, āvarta, tuṣa, trāsa, lekhā, kalaṅka, and kīlaka (22b–30ab),[1114] the four types of sphaṭika: gomedaka, puṣparāga, vaiḍūrya, and śītaruṅmaṇi[1115] (30c-f), the twenty-two types of ratna according to the *Utpalaparimala* (34–35), the five defects of gems: kāśa, trāsa, bindu, rekhā, and jalagarbhatā (59),[1116] and good qualities and defects associated with each of the five mahābhūtas (70–80).

RATNAPARĪKṢĀ by Rāmacandra.[1117]

RATNAPARĪKṢĀ by Soma.[1118] This work, written in Prakrit, consists of 146 verses: 22 verses on ratnaparīkṣā, 48 on mauktikaparīkṣā, 17 on māṇikyaparīkṣā, and 12 on marakataparīkṣā.

The same author's *Dhātuvādaprakaraṇa*, which is an appendix to the *Ratnaparīkṣā*, gives a detailed account of transmuting copper into gold.

Soma may have lived in the fourteenth century.[1119]

RATNAPARĪKṢĀ by Tattvakumāra Muni.[1120]
RATNAPARĪKṢĀ by Vācaka Ratnaśekhara.[1121]
RATNAPARĪKṢĀ by Vaṃśeśvara.[1122]
RATNAPARĪKṢĀSAMUCCAYA.[1123]
RATNAPARĪKṢĀṬĪKĀ.[1124]
RATNAPARĪKṢĀVIDHĀNA.[1125]
RATNAPRADĪPANIGHAṆṬU.[1126]
RATNAPRADĪPIKĀ by Bharadvāja.[1127]
RATNAPRAKARAṆA.[1128]
RATNASĀGARA.[1129]

RATNASAṂGRAHA.[1130] This work, in twenty-two verses, deals with: vajra (1–5), mauktika (6–7), padmarāga (8–9), indranīla (10–11), marakata (12–13), vaiḍūrya (14), lasuna (15), puṣyarāga (16), gomeda (17), sphaṭika (18), masāramaṇi (19),[1131] and perojā (20).

RATNASAMUCCAYA, anonymous.[1132]
RATNASAMUCCAYA by Nāmadeva.[1133]

RATNASĀRACINTĀMAṆI.[1134]
RATNAŚĀSTRA.[1135]
RATNAŚĀSTRA by Buddhabhaṭṭa.[1136]
RATNAUṢADHAYOGA.[1137]
RATNĀVALĪ.[1138]
RATNAVIJÑĀNA by Puruṣottamadāsa Svāmin.[1139]
RATNAVIJÑĀNA by Rādhākṛṣṇapārāśara.[1140]

RAYAṆAPARIKKHĀ by Ṭhakkura Pherū.[1141] This treatise, in 132 Prakrit verses (gāthā), deals with precious and semi-precious stones. Its subjects are: the mythical origin of gems (6–11); the natural origin of gems (12); the relationships between the nine major gems and the nine grahas (13–15); the effects of wearing gems (16–18); the contents of the work (19); the diamond (vajja = Sanskrit vajra; 20–38); pearls (muttāhala = Sanskrit muktāphala; 39–54); the ruby (paümarāya = Sanskrit padmarāga, or māṇikka = Sanskrit māṇikya; 55–70); the emerald (maragaya = Sanskrit marakata; 71–80); the sapphire (mahendanīla = Sanskrit mahendranīla; 81–87); coral (vidduma = Sanskrit vidruma, or pavālaya = Sanskrit pravālaka; 90–91); lhasaṇiya (= Sanskrit laśunaka; 92–93);[1142] vaïḍujja (= Sanskrit vaiḍūrya; 94);[1143] rock crystal (phaliha = Sanskrit sphaṭika; 95–96); the topaz (puṃsarāya = Sanskrit puṣparāga; 97); the chrysoberyl (kakkeyaṇa = Sanskrit karketana; 98); bhīsama (= Sanskrit bhīṣma; 99);[1144] the zircon (gomeya = Sanskrit gomeda; 100); some generalities on gems (101–102); the three gems imported from Persia: the spinel (lāla),[1145] carnelian (akīyā = Sanskrit akīka) and turquoise (perujjā = Sanskrit peroja; 103–105);[1146] the experts (maṇḍaliya = Sanskrit māṇḍalika) and their trade (106–111); weights (112); the prices of gems (113–130).[1147]

Authorities mentioned are Agastya, Buddhabhaṭṭa and Suramantrin (= Bṛhaspati) (3).

The five most excellent gems (mahāratna) are the diamond, pearl, ruby, emerald, and sapphire (88); the seven minor gems (uparatna) are coral, lhasaṇiya, vaïḍujja, rock crystal, topaz, chrysoberyl, and bhīsama (89).

The details of the myth about the origin of gems from the body of the demon Bala differ in some respects from the account in Buddhabhaṭṭa's *Ratnaśāstra*.[1148]

The kuruvinda is mentioned as a stone able to scratch a sapphire (36).[1149] Methods to detect counterfeit diamonds (kūḍavajja = Sanskrit kūṭavajra) are described (37–38).

The traditional eight sources of pearls are enumerated and described (39–48). The list of pearl fisheries (49) differs from comparable lists in other sources.

The word cunnī as a synonym of māṇikya (ruby) is only found in Ṭhakkura Pherū's work (56), which also adds a fifth variety of ruby, called jāmuṇiya, to the usual four (56). Peculiar to the *Rayaṇaparikkhā* are the five varieties of the emerald: garuḍodgāra,[1150] kīḍaüṭhī, vāsaütī, mūgaünī and dhūlimarāī (72–75). The verses on rock crystal mention ravikānta (= sūryakānta)[1151] and śaśikānta (= candrakānta) as varieties (96). Karketana is said to be found in a country called Pavanuppaṭhāna (98).[1152] The zircon is described as occurring in Sirināyakula,[1153] Parevaga,[1154] and the river Navvuyā (= Sanskrit Narmadā; 100). The spinel is found in Vandankhasāṇa,[1155] the carnelian in Yamana,[1156] the turquoise in Nīsāvara[1157] and Muvāsīra.[1158]

A text known as *Sirirayaṇaparikkhāpayaraṇa*[1159] (= Sanskrit *Śrīratnaparīkṣāprakaraṇa*) is an abridgment and adaptation of the *Rayaṇaparikkhā* by some later author, who also incorporated Ṭhakkura Pherū's *Dhātūtpatti*.

The author[1160] mentions his name, Pherū, at the beginning and end of his treatise. His father was Ṭhakkura Canda (= Sanskrit Candra) of Sirimālakula;[1161] his grandfather was Kāliaä (= Sanskrit Kāliyaka), a merchant (siṭṭha) of the Siridhandhakula, who lived in Kannāṇapura.[1162] This information establishes that the author belonged to the Kharataragaccha of Śvetāmbara Jains.

Ṭhakkura Pherū[1163] wrote his *Rayaṇaparikkhā* for the benefit of his son Hemapālaka.

The author mentions that he had the opportunity to observe the collection of gems in the treasury of Allāvadīṇa,[1164] the cakravartin of the Kali age.[1165]

Other works by the same author are the *Dhātūtpatti*, *Dravyaparīkṣā*, *Gaṇitasāra*, *Jyotiṣasāra*, *Kharataragacchayugapradhānacatuḥpadikā*, and *Vāstusāra*.[1166]

The *Rayaṇaparikkhā* was completed in Delhi in A.D. 1315/16.[1167]

ṚṢIŚṚṄGATANTRA.[1168]

RUDRAYĀMALA.[1169] This work, belonging to the Yāmala class of Tantric literature,[1170] contains material belonging to the domain of rasaśāstra. The *Rudrayāmala* is quoted in the *Kūpīpakvarasanirmāṇavijñāna*, *Rasakāmadhenu*, *Rasatattvavivecana*, and in Somadevaśarman's commentaries on the *Āyurvedaprakāśa*.

Well-known are[1171] the *Dhātukriyā*,[1172] *Rasakalpa*,[1173] and *Rasārṇavakalpa*[1174] from the *Rudrayāmala*. Other parts are an *Auṣadhikalpa*,[1175] various kalpas,[1176] and a *Sarvajvaravipāka*.[1177]

The fragmentary *Auṣadhikalpa* contains the following kalpas: vijayā-, uccaṭā-, nāgadamanī- (or īśvarī-), vajravallī-, vajradantī-, asthikarṇī-, nīlī-, and śailodakakalpa;[1178] these kalpas are followed by verses on saṃkoca, drāvaṇa, keśarañjana, dhātumāraṇa, and bhasmasūtaka.

The *Rasakalpa* of the *Rudrayāmala* is placed in the thirteenth century.[1179]

An appendix (pariśiṣṭa) to the *Rasakalpa* was written by Kāśīkara.[1180]

An anonymous *Rasaratnākara* is also said to derive from the *Rudrayāmala*.[1181]

SADYOGAKAṆṬHIKĀ by Govindācārya.[1182]
SAHASRARASADARPAṆA by Bhallāsvāmin.[1183]
ŚAIVĀLABHAKṢYA is the name of an author or work quoted by Ṭoḍara.[1184]
ŚAṄKHADRĀVAKAVIDHĀNA.[1185]

The SARVADARŚANASAṂGRAHA by Mādhava[1186] contains a chapter (9), called Raseśvaradarśana, that deals with alchemy and its philosophical basis.[1187]

Authorities and works, connected with rasaśāstra, and quoted or referred to, are Govindabhagavatpāda (4; prose after 16–17), *Rasahṛdaya* (5; 20–22), *Rasārṇava* (1cd–2; 3; 18–19; 27–28), *Raseśvarasiddhānta* (7–9; 23–24),[1188] and *Sarvajña-rāmeśvara* (prose after 16–17).[1189] The *Rasahṛdaya* is also quoted anonymously (31–33).

Other authorities mentioned are Sanaka, Śrīkāntamiśra,[1190] Viṣṇusvāmin and his *Sākārasiddhi*.[1191]

The *Raseśvaradarśana* is quoted in Āśubodha and Nityabodha Senagupta's commentary on the *Rasaratnasamuccaya*.

The eighteen saṃskāras of mercury are according to the *Sarvadarśanasaṃgraha* (16–17): svedana, mardana, mūrchana, sthāpana, pātana, nirodha, niyama, dīpana, gamana, grāsapramāṇa, jāraṇa, pidhāna, garbhadruti, bāhyadruti, kṣāraṇa, saṃrāga, sāraṇa, krāmaṇa (together with vedha, and followed by bhakṣaṇa).[1192]

Three hypotheses have been formulated concerning the authorship of the *Sarvadarśanasaṃgraha*, traditionally attributed to a Mādhava. This author was either the brother of Sāyaṇa, the famous commentator on the Vedas, or the son of Sāyaṇa, or the same as Cennu Bhaṭṭa. Sāyaṇa's brother Mādhava, also known as Vidyāraṇya, was a minister of the Vijayanagar kings Bukka I (A.D. 1356 or 1357 to 1377)[1193] and Harihara II (A.D. 1377–1404),[1194] but became a saṃnyāsin in 1391 and held the office of abbot of the Śṛṅgeri monastery.[1195]

SARVEŚVARARASĀYANAROGAHARAPARIPUṢṬAKA,[1196] lost in its Sanskrit original, is a short treatise, preserved in a Tibetan translation. The Tibetan title is: *Thams-cad-kyi dbaṅ-phyug bcud-len nad thams-cad ḫjoms śiṅ lus-kyi stobs rgyas-par byed-pa.*[1197]

The author is Dbaṅ-phyug (= Sanskrit Īśvara).[1198] The translators were Śivadāsa of Haridvāra and Rin-chen dpal (Ratnaśrī) of Oḍḍiyāna.

The subjects dealt with are: the purification of mercury (1–3), copper (4–5) and tin (6); the killing of iron (7) and mica (8); a prescription against skin diseases (10); the purification of silver (11); the killing of lead (12); the purification of gold (13); the killing of a substance called supakita (14);[1199] the preparation of some rasāyana pills (15–16).[1200]

ŚATAJĀRAṆASINDŪRA.[1201]

SIDDHALAKṢMĪŚVARATANTRA.[1202] Quoted in the *Āyurvedaprakāśa*, *Pāradasaṃhitā*, the *Rasendracintāmaṇi*, and Trimalla's *Bṛhadyogataraṅgiṇī*.

SIDDHARATNĀKARA.[1203]

SIDDHASĀRATANTRA by Niśācarabhaṭṭācārya.[1204] This work deals with the following subjects: mahāgūḍhasiddhi, guruprāpti, śiṣyalakṣaṇa, maṇḍapavidhāna, balividhāna, mṛdvikalpa, mūṣāviracana, upaskaraṇavidhi, vahnikarmavidhi, mahārasoparasakathana, dravyaśodhana, loharañjana, lohamāraṇa, sattvapātana, dvandvamelana, gaganadrāvaṇa,[1205] hematārākṛṣṭipradarśana, svedanādhikāra, bījavyutpatti, viḍādhikāra, khagayuktyadhikāra, sārādhikāra, krāmaṇakaraṇa, varṇotkarṣādhikāra, mṛdūkaraṇādhikāra, and rasasiddhiprayoga. The author refers to Nāgārjuna.[1206]

SIDDHATANTRA.[1207]
SINDŪRAPRAKARAṆA by Somaprabhasūri.[1208]

ŚUDDHIPRAKARAṆA.[1209]
ŚŪLAKASIṂHAVIDHĀNA.[1210]

SŪTAMAHODADHI.[1211] Quoted in Rāmarāja's *Rasaratnapradīpa*, the *Rasarājalakṣmī*, Ṭoḍara's *Āyurvedasaukhya*, and Viṭṭala's *Rasasindhu*. This work proves to be earlier than the third quarter of the fourteenth century, in which the *Rasarājalakṣmī* was composed.

SŪTAPRADĪPIKĀ.[1212] This work mentions thirteen major poisonous substances and six minor ones (upaviṣa).[1213] The *Sūtapradīpikā* is mentioned among the sources of the *Rasayogasāgara*.[1214]

SŪTARĀJA.[1215] One of the sources of the *Ratnākarauṣadhayogagrantha*. A *Sūtarāja* is mentioned in Revaṇasiddha's *Vīrabhaṭṭīya*.

SŪTARĀJARASA.[1216]

SŪTĀRṆAVA.[1217] Quoted in the *Rasasindhu* and Ṭoḍara's *Āyurvedasaukhya*. The reference to the *Sūtārṇava* in the *Rasasindhu* indicates that the former is earlier than the third quarter of the fourteenth century.

SUVARṆABHASMAVIDHĀNA.[1218]
SUVARṆANIRMĀṆAVIDHI.[1219]

SUVARṆARAUPYASIDDHIŚĀSTRA by Jinadattasūri, a Jain monk belonging to the Kharataragaccha.[1220]

SUVARṆASĀRA.[1221]

SUVARṆATANTRA or *Svarṇatantra*.[1222] This text was revealed by Śiva to Paraśurāma, who, rendered destitute after donating all his worldly possessions to Kaśyapa, acquired from Śiva the means of transforming mercury into gold.[1223] The introductory verses mention that, earlier already, Śiva transmitted to Paraśurāma the *Ratnatantra*, the knowledge about 2,000 guṭikās, 600 forms of mercury, eight dhātukalpas, and the dhātuyogākhyakalpa.[1224] The *Suvarṇatantra* contains the kākarī-, aṅgāra- and śvetabṛhatīkalpas,[1225] and describes five varieties of (śaṅkha)drāva and their uses.[1226] A plant that is regarded as an essential ingredient of a mercurial preparation is called tailakanda.[1227]

The *Suvarṇatantra* is regarded as posterior to the sixteenth century.[1228]

SVACCHANDABHAIRAVA by Balabhadra.[1229] Some rasayogas are called after Svacchandabhairava.[1230] He is a Rasasiddha in the *Pāradasaṃhitā*, *Rasaratnasamuccaya*, *Rasataraṅgiṇī*, and *Rasendrasambhava*.

SVARṆADĪPIKĀ.[1231] This small treatise describes the transmutation of base metals into gold or silver.[1232]

SVARṆAKĀRAMĀRAṆA.[1233]
SVARṆAMUKTĀRASAVYĀKHYĀ.[1234]
SVARṆAPAÑCĀMṚTARASAYOGA.[1235]
ŚVETĀŚVARASABADDHAKALKAVIDHĀNA by Somanātha.[1236]
TĀLAKAMĀRAṆA.[1237]
TĀLAKEŚVARARASA.[1238]
TĀMRABHASMASINDŪRAVIDHI.[1239]
TĀMRABHASMAVIDHI.[1240]
TĀMRAKALPA.[1241]
TĀMRAŚUDDHIVIDHĀNA.[1242]
TĀMRAVANA by Muṇḍin.[1243]
TANTRARĀJA by Jābāla.[1244]
TANTRASĀRAKOṢA by Śaṅkunāthadatta.[1245]
TĀRAKRIYĀ.[1246]
TRAILOKYACINTĀMAṆI.[1247]
TRAILOKYACINTĀMAṆIGUṬIKĀNIRMĀṆAVIDHI.[1248]
TRAILOKYACINTĀMAṆIRASANIRŪPAṆA.[1249]
TRAILOKYACINTĀMAṆIRASAYOGA.[1250]
TUTTHABHASMAVIDHI.[1251]
UDAYABHĀSKARARASA.[1252]
UPADHĀTUMĀRAṆA.[1253]
UPARASAPRAKARAṆA.[1254]

UTTAṄKADARPAṆA.[1255] The larger part of this text has been borrowed from Trimalla's *Yogataraṅgiṇī*.[1256]

VAIDYA.[1257]
VAIDYAGRANTHA.[1258]
VAIDYAKARASARĀJAMAHODAYA, compiled by Nārāyaṇaprasāda Miśra.[1259]

VAIDYAKASAṂGRAHA.[1260] An anonymous work, dealing with rasas only. It quotes the *Rasaratnākara*, *(Śārṅgadhara)saṃhitā* and *Yogaratnasamuccaya*.[1261]

VAIDYĀMṚTA by Nārāyaṇa.[1262]
VAIDYARASĀYANA.[1263]
VAIDYAVIṢAYA.[1264]
VAJRAKṢĀRAVIDHĀNA.[1265]
VAṄGABHASMANIRMĀṆACIKITSĀKRAMA.[1266]
VAṄGABHASMAVIDHĀNA.[1267]
VAṄGAMĀRAṆA.[1268]

VARṆARATNĀKARA by Jyotirīśvara Ṭhakkura. This work describes eighteen ratnas and thirty-two uparatnas.[1269]

VASANTACANDRODAYA.[1270]
VASANTAKUSUMĀKARĀDIYOGĀḤ.[1271]
VASANTAKUSUMĀKARAYOGA.[1272]
VĀSUDEVASAṂHITĀ by Vāsudeva.[1273]
VICITRARASAPRAYOGANIRŪPAṆA.[1274]
VIVIDHARASANIRMĀṆACIKITSĀ.[1275]
VRAṆĀṄKUŚARASA.[1276]
YANTRACŪḌĀMAṆI.[1277]
YANTRODDHĀRA.[1278]
YAVANAJĀTAKA by Sphujidhvaja.[1279]
YOGARATNĀKARA by Keśavadeva.[1280]
YOGASĀRA.[1281]

YUKTIKALPATARU by Bhojarāja. This treatise contains an alaṃkārayukti, which deals with ratnaśāstra. Its subjects are: the mythical origin of gems (47–51; from the *Garuḍapurāṇa*); an enumeration of gems: vajra, marakata, padmarāga, mauktika, indranīla, mahānīla,[1282] vaidūrya, gandhasaṃjñaka, candrakānta,[1283] sūryakānta,[1284] sphāṭika, pulaka, karketa, puṣparāga, jyotīrasa,[1285] sphāṭika (again), rājāvarta,[1286] rājamaya,[1287] saugandhika,[1288] gandha (or gañja), śaṅkha, brahmamaya,[1289] gomeda, rudhirākhya, bhallātaka,[1290] dhūlī, marakata (again), tutthaka, sīsa, pīlu[1291] (or pīta),[1292] pravālaka, girivajra, bhāskara (or bhārgava, or bhāṅgura), bhujaṅgamaṇi,[1293] vajramaṇi, tittira (or tittibha),[1294] pīta, bhrāmara, utpala[1295](52–57; from the *Viṣṇudharmottara*);[1296] padmarāga (58–121); vajra (122–219; 140–157 is from the *Garuḍapurāṇa*; 158–159 is from the *Viṣṇudharmottara* and *Agnipurāṇa*; 160–166 is from the *Garuḍapurāṇa*); vidruma (220–233); gomeda (234–242); muktā (243–366; 251–294 is from the *Garuḍapurāṇa*; 310–315 is from the *Matsyapurāṇa*; 316–320 is from the *Garuḍapurāṇa*); vaidūrya (367–394); indranīla (395–431; from the *Garuḍapurāṇa*); marakata (432–471; from the *Garuḍapurāṇa*); puṣparāga (472–478ab); karketana (478cd–484; from the *Garuḍapurāṇa*); bhīṣmamaṇi (485–494; from the *Garuḍapurāṇa*); pulaka (495–498); rudhirākhya (499–501); sphaṭika (502–513; from the *Garuḍapurāṇa*); ayaskānta (514–515); śaṅkha (517–525).

Appendices

Appendix 1
Authorities associated with formulae

AGNI[1]

ĀNANDAKANTHAḌĪ
saṃnipātabhairavarasa (*Bhaiṣajyaratnāvalī*, jvara 734–742).

ĀNANDAKARPAṬĪ
saṃnipātabhairavarasa (*Bṛhadrasarājasundara* 286).

ĀNANDANĀTHA
vātavidhvaṃsanarasa (*Bṛhadrasarājasundara* 452–453).

ANNAṂPOTAMADĀSA
ajīrṇagajāṅkuśa (*Rasayogasāgara*, akārādi 97: from *Ratnākarauṣadhayoga*).

AṢṬĀVAKRA
aṣṭāvakrarasa (*Rasayogasāgara*, akārādi 278).

ĀSTĪKA[2]
an agada (*Cikitsākalikā* 387).
mahāpadmakaghṛta (*Mādhavacikitsā*, visarpavisphoṭa 21).
padmakādighṛta (*Vaidyacintāmaṇi* 480).
padmakaghṛta (*Yogaratnākara* 715).

AŚVINS[3]
recipe without a name (Anantakumāra's *Yogaratnasamuccaya* 24.568–572).
agnikumārarasa (*Rasayogasāgara*, akārādi 35).
amṛtādighṛta (*Bhāratabhaiṣajyaratnākara*, Nr. 167; *Vaidyacintāmaṇi* 377–378).
amṛtādiguggulu (*Bhāratabhaiṣajyaratnākara*, Nr. 136).
amṛtādyaghṛta (*Bhaiṣajyaratnāvalī*, vātarakta 131–137; *Bhāvaprakāśa*, cikitsā 29.102–108; Ṭoḍara V: 12.43–49).
amṛtādyaguggulu (*Bheṣajasaṃhitā* 6, Nr. 7; *Bṛhadyogataraṅgiṇī* 91.65–71; *Yogaratnākara* 476–477).
amṛtāguggulu (*Bhaiṣajyaratnāvalī*, vātarakta 84–90; *Bhāvaprakāśa*, cikitsā 29.183–190; *Sahasrayoga* 214–215).
amṛtākhyaguggulu (Ṭoḍara V: 12.77–84).

amṛtaprāśa (*Bhaiṣajyaratnāvalī*, rājayakṣman 275–280; Ṭoḍara IV: 8.89–93).
amṛtataila (Bower MS II.418–425).
aṅkolabījataila (*Bhāratabhaiṣajyaratnākara*, Nr. 8855).
aśvagandhābasti (Bower MS II.618–625).
aśvagandhāpāka (*Bhāratabhaiṣajyaratnākara*, Nr. 8992; *Bṛhadyogataraṅgiṇī* 147.38–42; *Pākapradīpa* 388–392; *Rasayogasāgara*, akārādi 268).
āśvinarasāyana (Bower MS II.773–781).
āśvinayoga (Bower MS II.418–425).
ayaḥpatirasa (Cat. Madras Nr. 13140: *Cikitsāsārasaṃgraha*).
ayorājayoga (HIM I, 149 and 157).
bālasūryodayarasa (Cat. Madras Nr. 13221: *Vaidyagrantha*).
balāśvagandhāditaila (*Sahasrayoga* 79–80).
bhaktottaracūrṇa (*Bhāratabhaiṣajyaratnākara*, Nr. 4936; *Rasayogasāgara*, pakārādi 405).
bhaktottarīyacūrṇa (*Bhaiṣajyaratnāvalī*, vṛddhi 59–64).
bhallātakarasāyana (*Rasayogasāgara*, pakārādi 412).
bhārgyabhayāvaleha (*Cikitsākalikā* 225–228).
bhārṅgīharītakyavaleha (*Yogataraṅgiṇī* 30.3–5: expounded by the two Bhiṣagvaras to Purandara).
bilvataila (*Rasaratnadīpikā*, 148).
bindughṛta (Bower MS II.287–312).
bṛhadagnimukhacūrṇa (*Bṛhannighaṇṭuratnākara* V, 18: ajīrṇa; *Gadanigraha* I, cūrṇa 128–139).
bṛhadaśvagandhādyaghṛta (*Bṛhadyogataraṅgiṇī* 147.77–88; Vaṅgasena, vājīkaraṇa 22–33).
bṛhaddāḍimādyaghṛta (*Bhaiṣajyaratnāvalī*, prameha 208–216; *Bhāratabhaiṣajyaratnākara*, Nr. 6762).
bṛhadguḍapippalī (*Bhaiṣajyaratnāvalī*, plīhayakṛt 53–57; *Dhanvantari*, udara 42; *Rasarājasundara* 501; *Rasendrasārasaṃgraha*, plīharoga 65–70).
bṛhadvāsāvaleha (*Bhaiṣajyaratnāvalī*, rājayakṣman 40–45; *Sahasrayoga* 192).
bṛhallākṣāditaila (*Bhaiṣajyaratnāvalī*, jvara 1336–1340).
bṛhallavaṅgādicūrṇa (*Bhāratabhaiṣajyaratnākara*, Nr. 6353; *Rasayogasāgara*, yakārādi 216).
bṛhanmusalīpāka (*Pākapradīpa* 55–68).
bṛhannārikelakhaṇḍa (*Bhāvaprakāśa*, cikitsā 10.27–35; HIM I, 150 and 170–171; *Pākapradīpa* 374–382).
bṛhatsindūrādyataila (*Bṛhadyogataraṅgiṇī* 120.24–27; *Rasakāmadhenu* IV.40.583–585; *Yogaratnākara* 694; *Vaidyacintāmaṇi* 466–467).
candanādicūrṇa (*Bhaiṣajyaratnāvalī*, pradara 20–24; *Bhāratabhaiṣajyaratnākara*, Nr. 1698; *Rasaratnākara* II, pradara 12–17; *Vaidyacintāmaṇi* 224; *Yogaratnākara* 307; *Yogataraṅgiṇī* 26.17–23).
candanādivaṭaka (*Vaidyacintāmaṇi* 118).
candanādyacūrṇa (*Gadanigraha* I, cūrṇa 64–69; Vaṅgasena, raktapitta 93–98).
citrakādyacūrṇa (*Rasaratnākara* II, śūla 33–40).

citrakaharītakī (Ṭoḍara VII: 15.49–55).
citrakaharītakyavaleha (*Gadanigraha* I, leha 124–131ab).
dāḍimādyaghṛta (*Bhaiṣajyaratnāvalī*, prameha 203–207; *Bhāratabhaiṣajyaratnākara*, Nr. 3056; *Bhāvaprakāśa*, cikitsā 38.76–80; Ṭoḍara VI: 9.87–91).
dāḍimāvaleha (*Bhāratabhaiṣajyaratnākara*, Nr. 3020).
daśamūlataila (*Bhāratabhaiṣajyaratnākara*, Nr. 3088).
daśāṅgataila (*Bhāratabhaiṣajyaratnākara*, Nr. 3098; *Gadanigraha* I, taila 159–167).
godhūmādyaghṛta (*Bhaiṣajyaratnāvalī*, vājīkaraṇa 277–287; *Siddhayoga* 70.22–30).
guḍakūṣmāṇḍaka (*Bhaiṣajyaratnāvalī*, vājīkaraṇa 173–179; *Siddhayoga* 70.34–40).
guḍakūṣmāṇḍāvaleha (*Bṛhadyogataraṅgiṇī* 147.21cd–27).
guḍapippalī (*Dhanvantari*, udara 30; *Rasaratnadīpikā* 362–363).
guḍapippalīmodaka (*Bhāratabhaiṣajyaratnākara*, Nr. 1307).
guḍūcītaila (*Cikitsākalikā* 306).
gulmacūrṇa (Bower MS II.96–101).
haridrācūrṇa (Bower MS II.216–222).
harītakyavaleha (*Gadanigraha* I, leha 138–140).
hastikarṇīrasāyana (*Vaidyacintāmaṇi* 96).
hemagarbharasāyana (*Rasayogasāgara*, śakārādi 640).
jambvādikasarpis (Anantakumāra's *Yogaratnasamuccaya* 9.713–720).
jvaraharaghṛta (Bower MS II.241–244).
kapikacchūpāka (*Pākapradīpa* 424–430).
ketakītaila (*Vaidyacintāmaṇi* 240).
khaṇḍakūṣmāṇḍa (*Rasaratnākara* II, raktapitta 52–59; *Siddhayoga* 9.49–56; Ṭoḍara IV: 7.101–107).
kṛmikuṭhārarasa (*Rasayogasāgara*, kakārādi 321).
kṣīrayoga (HIM I, 149 and 157).
kṣudhārākṣasataila (D. Suresh Kumar, 1990: 100: from *Dhanvantari*).
kumārīpāka (*Bhāratabhaiṣajyaratnākara*, Nr. 816; *Pākapradīpa* 326–335; *Rasayogasāgara*, kakārādi 276).
kuṅkumādyataila (*Bhaiṣajyaratnāvalī*, kṣudraroga 115–120; *Bhāratabhaiṣajyaratnākara*, Nr. 871; *Bṛhadyogataraṅgiṇī* 127.113–119ab; *Dhanvantari*, kṣudraroga 46; Ṭoḍara VII: 12.116–121).
kūṣmāṇḍādilehya (*Vaidyacintāmaṇi* 225).
kūṣmāṇḍakarasāyana (A.h.Ci.3.114–118ab; A.s.Ci.4.61–65; *Mādhavacikitsā*, raktapitta 29 and 30; *Yogataraṅgiṇī* 26.24–29).
kūṣmāṇḍakhaṇḍa (*Bhaiṣajyaratnāvalī*, raktapitta 94–101).
kūṣmāṇḍarasāyana (*Sahasrayoga* 177).
kūṣmāṇḍāvaleha (*Bṛhadyogataraṅgiṇī* 75.72–78; *Gadanigraha* I, leha 15–20; *Rasayogasāgara*, kakārādi 314; *Yogaratnākara* 307).
kuṣṭharākṣasataila (*Bhaiṣajyaratnāvalī*, kuṣṭha 294–298; *Dhanvantari*, kuṣṭha 54).
kuṣṭhataila (*Bhāratabhaiṣajyaratnākara*, Nr. 878).
laghuciñcādilehya (*Vaidyacintāmaṇi* 120–121).
laghuciñcāleha (*Rasayogasāgara*, cakārādi 101).
lākṣāditaila (*Bhāratabhaiṣajyaratnākara*, Nr. 6287).

laśunādyaghṛta (Bower MS II.223–225).
lavaṅgādyamodaka (*Bhaiṣajyaratnāvalī*, agnimāndyādi 245–250; *Bhāratabhaiṣajyaratnākara*, Nr. 6354; *Sahasrayoga* 217–218).
madhyamadaśamūlataila (*Bhaiṣajyaratnāvalī*, śiroroga 90–93; *Dhanvantari*, śiroroga 23).
mahābhallātakarasāyana (*Vaidyacintāmaṇi* 460–461).
mahāciñcādilehya (*Vaidyacintāmaṇi* 240–241).
mahādāḍimādyaghṛta (*Bhaiṣajyaratnāvalī*, prameha 217–222; *Bhāratabhaiṣajyaratnākara*, Nr. 5238).
mahākalkarasa (*Napuṃsakāmṛtārṇava* 9.39–50).
mahākūṣmāṇḍakasarpis (*Sahasrayoga* 58).
mahālākṣāditaila (*Dhanvantari*, jvara 126; *Rasaratnadīpikā* 97–98).
mahālavaṅgādyacūrṇa (*Bhaiṣajyaratnāvalī*, grahaṇī 75–82).
mahāparaṅgādirasāyana (*Vaidyacintāmaṇī* 297).
mahāsugandhitaila (*Bhāratabhaiṣajyaratnākara*, Nr. 5307; *Napuṃsakāmṛtārṇava* 2.70–72; *Siddhayoga* 70.31–33; *Yogaratnākara* 919).
māhiṣākhyaguggulu (*Bhāratabhaiṣajyaratnākara*, Nr. 5186).
mārtaṇḍarasa (Cat. Madras Nr. 13190: *Ratnākarauṣadhayogagrantha*).
mātuluṅgaguṭikā (Bower MS II.75–77 and 85–86).
nāgabalātaila (*Vaidyacintāmaṇi* 377).
nārikelāmṛta (*Bhaiṣajyaratnāvalī*, śūla 242–251; *Bhāratabhaiṣajyaratnākara*, Nr. 3472; *Dhanvantari*, śūla 37; *Rasaratnākara* II, amlapitta 68–79; Vaṅgasena, amlapitta 66–77).
nimbapañcāṅgarasāyana (Ananta's *Yogaratnasamuccaya* 30.124–127).
pāṇḍurogāntakarasa (*Rasayogasāgara*, pakārādi 105).
pāraṅgyādirasāyana (*Rasayogasāgara*, pakārādi 121).
phalaghṛta (Anantakumāra's *Yogaratnasamuccaya* 21.23–29; *Basavarājīya* 250; *Gadanigraha* I, ghṛta 142–149; *Rasaratnākara* II, yonivyādhi 9–16; *Yogaratnākara* 848).
phalakalyāṇaghṛta (*Bhaiṣajyaratnāvalī*, yonivyāpad 78–84).
pippalīvardhamānakalpa (Bower MS II.716–737).
pippalyādirasāyana (*Sahasrayoga* 209).
pippalyādyavaleha (*Gadanigraha* I, leha 300–305).
pīyūṣavallīrasa (*Bhaiṣajyaratnāvalī*, grahaṇī 334–345; *Bṛhadrasarājasundara* 347–348).
pramehagajasiṃha (*Rasaratnadīpikā* 327–328).
punarnavāguggulu (HIM I, 149 and 167).
rājarasāyana (Vaṅgasena, nāsāroga 35–39).
rasādicūrṇa (*Bhāratabhaiṣajyaratnākara*, Nr. 6107; *Rasayogasāgara*, yakārādi 125; Ṭoḍara V: 5.49–50; *Vaidyacintāmaṇi* 429; *Yogaratnākara*, 399).
a rasāyana (Niścala ad *Cakradatta*, nāsāroga 29–31: two formulae, from Candraṭa and the *Nāvanītakasaṃhitā*).
rasāyanāriṣṭa (*Gadanigraha* I, āsava 304–311).
śailūṣādirasāyana (*Vaidyacintāmaṇi* 296).

samaśarkaraguggulu (*Bhāvaprakāśa*, cikitsā 29.170–176; *Rasaratnākara* II, kuṣṭha 264–268).
śaṅkhapuṣpādyaghṛta (*Gadanigraha* I, ghṛta 135, add.).
sarveśvaracūrṇa (*Bhāratabhaiṣajyaratnākara*, Nr. 8192; *Rasayogasāgara*, śakārādi 351).
śatāvarīghṛta (*Bhāratabhaiṣajyaratnākara*, Nr. 7360; *Gadanigraha* I, ghṛta 130–135).
śatāvarīsarpis (Anantakumāra's *Yogaratnasamuccaya* 30.151–169).
saubhāgyaśuṇṭhīpāka (*Bhāratabhaiṣajyaratnākara*, Nr. 8302; *Pākapradīpa* 214–228).
sindūrādyataila (*Bhāratabhaiṣajyaratnākara*, Nr. 7990).
śrīgopālataila (*Bhaiṣajyaratnāvalī*, vātavyādhi 289–300; *Bhāratabhaiṣajyaratnākara*, Nr. 7426; *Bheṣajasaṃhitā* 12, Nr. 71).
svalpakadalīkhaṇḍaghṛta (HIM I, 150 and 176: from the *Saṃkṣiptasāra*).
tṛṣṇāhararasa (*Rasakāmadhenu* IV.3.7–8).
uttamāgnikumārarasa (*Vaidyacintāmaṇi* 69).
vajraharītakī (Anantakumāra's *Yogaratnasamuccaya* 13.103–124).
vāntāntakarasa (*Basavarājīya* 98; *Rasayogasāgara*, yakārādi 476; *Vaidyacintāmaṇi* 194–195).
viṣaharaghṛta (Bower MS II.251–257).
vyāghrītaila (*Vaidyacintāmaṇi* 209).

ĀTREYASŪRI
sudhāpippalīyoga (*Rasayogasāgara*, śakārādi 419).

AVALOKITEŚVARA[4]

BAHUGHĀTIYOGINĪ
vṛkodaraguṭikā (*Rasaratnasamuccaya* 21.130–132; *Rasayogasāgara*, yakārādi 584).

BHAGAVANT
mahākumārītaila (*Vaidyacintāmaṇi* 238).

BHAIRAVA
ardhanārīnaṭeśvararasa (*Rasayogasāgara*, akārādi 237).
ardhanārīśvararasa (*Bhāratabhaiṣajyaratnākara*, Nr. 8911; *Rasakāmadhenu* IV.1.233–236).
bhairavarasa (*Bhaiṣajyaratnāvalī*, upadaṃśa 32–48; *Rasayogasāgara*, pakārādi 454; *Rasendrasārasaṃgraha*, upadaṃśa 5–21).
bhairavarasāyana (*Rasakāmadhenu* IV.1.264–265).
candrānanarasa (*Bṛhadrasarājasundara* 507; *Rasendracintāmaṇi* 183; *Rasendrasārasaṃgraha*, kuṣṭha 13–14).
cintāmaṇirasa (*Bhaiṣajyaratnāvalī*, jvara 691–695; *Bṛhadrasarājasundara* 285; *Dhanvantari*, jvara 135; *Rasayogasāgara*, cakārādi 109; *Rasendrasārasaṃgraha*, jvara 76–79).

jvarabhairavacūrṇa (*Basavarājīya* 43; *Bhaiṣajyaratnāvalī*, jvara 455–466; *Bhāratabhaiṣajyaratnākara*, Nr. 2142; *Rasayogasāgara*, cakārādi 216).
a dhūma (*Dhanvantari*, upadaṃśa 18).
jvarāṅkuśarasa (*Bṛhadrasarājasundara* 255).
mahābhairavarasa (*Vaidyacintāmaṇi* 66).
mustakādimodaka (*Bhaiṣajyaratnāvalī*, grahaṇī 185–190; *Bhāratabhaiṣajyaratnākara*, Nr. 5181).
pāradādidhūpa (*Bhāratabhaiṣajyaratnākara*, Nr. 4385; *Rasayogasāgara*, pakārādi 126).
rasacūḍāmaṇi (Ṭoḍara III: 4.249–256).
śaṅkhadrāvarasa (*Rasayogasāgara*, śakārādi 20).
sarveśvararasa (*Bhāratabhaiṣajyaratnākara*, Nr. 8195; *Bṛhadrasarājasundara* 252; *Rasayogasāgara*, śakārādi 359).
sūcikābharaṇarasa (*Dhanvantari*, jvara 100; *Rasendrasārasaṃgraha*, jvara 145–146).
svacchandabhairavarasa (*Vaidyacintāmaṇi* 194).
vātanāśanarasa (*Rasaprakāśasudhākara* 8.118–120).

BHAIRAVANĀTHA
pañcāmṛtaparpaṭī (*Bṛhadrasarājasundara* 407–408; *Rasaratnasamuccaya* 14.77–97).

BHĀNU
parahitarasa (*Rasaratnasamuccaya* 20.83–88).

BHĀNUDĀSA
kuṭajaleha (*Bhāratabhaiṣajyaratnākara*, Nr. 791; *Dhanvantari*, atisāra 27).
kuṭajāṣṭaka (*Dhanvantari*, atisāra 28).

BHAVA
jvarakālaketurasa (*Bhaiṣajyaratnāvalī*, jvara 1031–1032; *Bṛhadrasarājasundara* 308; *Rasayogasāgara*, cakārādi 196).

BHŪTEŚVARA
bhūteśvararasa (*Rasayogasāgara*, pakārādi 448; *Vaidyacintāmaṇi* 39).

BODHISATTVA[5]
siṃhyamṛtaghṛta (*Bhaiṣajyaratnāvalī*, arśas 192–193; *Cakradatta*, arśas 105–106; Ṭoḍara IV: 3.172–173).

BRAHMĀ[6]
recipe without a name (Anantakumāra's *Yogaratnasamuccaya* 16.150–159; *Dhanvantari*, viṣa 41).
amṛtasaṃjīvanarasāyana (*Rasayogasāgara*, akārādi 187).
bhāskarādyaghṛta (*Bhāratabhaiṣajyaratnākara*, Nr. 4877; Vaṅgasena, netraroga 411–414).

bhāskaraghṛta (Ṭoḍara VII: 16.325–330).
bhūnimbādyacūrṇa (*Bhāratabhaiṣajyaratnākara*, Nr. 4839).
bṛhadagnimukhacūrṇa (*Bṛhannighaṇṭuratnākara* V, 18: ajīrṇa; *Gadanigraha* I, cūrṇa 128–139).
bṛhaddhānvantaraghṛta (*Bhāratabhaiṣajyaratnākara*, Nr. 6763).
bṛhatsārasvatacūrṇa (*Gadanigraha* I, cūrṇa 155–158).
candraprabhāguṭikā (*Gadanigraha* I, guṭikā 188–191).
caturmukharasa (*Bheṣajasaṃhitā* 1, Nr. 106; *Yogaratnākara* 328).
daśāṅgadhūpa (*Bhāratabhaiṣajyaratnākara*, Nr. 3160; Vaṅgasena, viṣa 121–125).
daśasārasarpis (Cat. Madras Nr. 13220: *Vaidyakagrantha*).
hiṅgulākhyarasa (*Rasaratnadīpikā* 60).
hutāśanarasa (*Yogaratnākara* 282–283).
kalyāṇarasa (*Rasayogasāgara*, kakārādi 116; *Vaidyacintāmaṇi* 41).
karṇāmṛtataila (*Rasasaṃketakalikā* 5.35–37).
lauhāmṛta (*Bhaiṣajyaratnāvalī*, śūla 163–168).
lohāmṛta (*Rasayogasāgara*, yakārādi 316).
mācikāsava (*Bhāratabhaiṣajyaratnākara*, Nr. 5337; *Gadanigraha* I, āsava 142–146ab).
mahārāsnādikvātha (*Bheṣajasaṃhitā* 14, Nr. 89; *Sahasrayoga* 33–34; *Śārṅgadharasaṃhitā* II.2.88–94; *Yogaratnākara* 451).
mṛtasaṃjīvanāgada (*Bhāratabhaiṣajyaratnākara*, Nr. 5716; *Cakradatta*, viṣa 32–38; Ca.Ci.23.54–60).
nakhaparīkṣā (Ṭoḍara II: 6.109–110).
nīlakaṇṭharasa (*Bhaiṣajyaratnāvalī*, rasāyana 61–65; *Bṛhadrasarājasundara* 542; *Rasendrasārasaṃgraha*, rasāyana 86–90; *Sahasrayoga* 239).
pañcasneha (*Sahasrayoga* 104).
pāṣāṇābhedapāka (*Pākapradīpa* 336–344: given to Cyavana).
pippalyādirasāyana (*Vaidyacintāmaṇi* 96).
a rasāyana (A.h.U.39.15–23).
sarvāṅgasundararasa (*Bhāratabhaiṣajyaratnākara*, Nr. 8182).
somarājīghṛta (*Bhaiṣajyaratnāvalī*, kuṣṭha 250–256; *Bhāratabhaiṣajyaratnākara*, Nr. 7965).
sudarśanacūrṇa (Ṭoḍara III: 4.1194–1203).
sūryaprabhā guṭikā (*Vaidyacintāmaṇi* 103; *Yogaratnākara* 323).
sūryavaṭī (*Rasayogasāgara*, śakārādi 538).
sūtikāghnarasa (*Bhaiṣajyaratnāvalī*, sūtikāroga 70–71; *Bhāratabhaiṣajyaratnākara*, Nr. 8265; *Rasayogasāgara*, śakārādi 513; *Rasendrasārasaṃgraha*, sūtikā 10–11).
vātakulāntakarasa (*Bhaiṣajyaratnāvalī*, apasmāra 26–30; *Bhāratabhaiṣajyaratnākara*, Nr. 6981; *Bṛhadrasarājasundara* 448; *Dhanvantari*, apasmāra 21; *Rasayogasāgara*, yakārādi 449; *Rasendrasārasaṃgraha*, apasmāra 9–12).
vijayabhairavarasa (*Basavarājīya* 143; *Bhaiṣajyaratnāvalī*, kāsa 80–83; *Vaidyacintāmaṇi* 199, 257).
vijayaguṭikā (*Basavarājīya* 305).
vijayānandarasa (*Bṛhadrasarājasundara* 520; *Rasendrasārasaṃgraha*, kuṣṭha 109–113).

BRAHMAJYOTIS
vardhamānarasa (*Rasaratnasamuccaya* 22.30–40).

BRAHMASUTA
kāmeśvaramodaka (*Bhaiṣajyaratnāvalī*, vājīkaraṇa 180–185; Ṭoḍara IV: 2.164–168).

BUDDHA[7]

BUDDHAMUNI
khageśvararasa (*Rasaratnasamuccaya* 20.100–103; *Rasayogasāgara*, kakārādi 356).

BUDDHINĀTHA
pramadebhāṅkuśarasa (*Bṛhadyogataraṅgiṇī* 147.278–297).

CAKRAPĀṆI
śaṅkhapāṇirasa (*Sahasrayoga* 241–242).

CAMPAKĀRAṆYAVĀSINAḤ[8]
jayasundararasa (*Rasaratnasamuccaya* 22.5–14; *Rasayogasāgara*, cakārādi 164).

CANDRA[9]
candrāvaleha (*Rasaratnasamuccaya* 21.172–176).
kṣudrāharītakīlehya (*Vaidyacintāmaṇi* 98–99).
mahādrākṣādicūrṇa (*Rasayogasāgara*, takārādi 326).

CANDRANĀTHA
agnigarbhavaṭī (*Rasayogasāgara*, akārādi 61).
āmagajasiṃhamodaka (*Bhaiṣajyaratnāvalī*, āmavāta 127–134).
āmavātagajendramodaka (*Rasaratnadīpikā* 302–303).
bhāskararasa (*Bhaiṣajyaratnāvalī*, agnimāndyādi 128–131; *Bhāratabhaiṣajyaratnākara*, Nr. 4948).
candrāmṛtalauha (*Bhaiṣajyaratnāvalī*, kāsa 121–126; *Bhāratabhaiṣajyaratnākara*, Nr. 1902; *Bṛhadrasarājasundara* 420–421; *Rasendrasārasaṃgraha*, kāsa 75–80).
candrāmṛtaloha (*Dhanvantari*, kāsa 26; *Rasayogasāgara*, cakārādi 69).
candrāmṛtaparpaṭī (*Bṛhadrasarājasundara* 414).
candrāmṛtarasa (*Basavarājīya* 144–145; *Bhaiṣajyaratnāvalī*, kāsa 62–70; *Rasayogasāgara*, cakārādi 68; *Vaidyacintāmaṇi* 257).
candrāmṛtavaṭī (*Bheṣajasaṃhitā* 1, Nr. 113; *Rasayogasāgara*, cakārādi 70).
kuṣṭhaśailendrarasa (*Rasaratnākara* II, kuṣṭha 217–226).
sarvajvaraharalauha (*Rasayogasāgara*, śakārādi 308; *Rasendrasārasaṃgraha*, jvara 233–239).
śiraḥśūlādivajrarasa (D. Suresh Kumar, 1990: 100: from *Dhanvantari*).
śirovajrarasa (*Bhāratabhaiṣajyaratnākara*, Nr. 7589; *Rasayogasāgara*, śakārādi 80; *Rasendrasārasaṃgraha*, śiroroga 6–10).

śrīcandrāmṛtaloha (D. Suresh Kumar, 1990: 100: from *Dhanvantari*).
śukramātṛkā vaṭī (*Bhaiṣajyaratnāvalī*, prameha 73–78).
śūlavajriṇī guṭikā (*Dhanvantari*, śūla 42; *Rasaratnākara* II, śula 77–85).
śūlavajriṇī vaṭī (*Bhaiṣajyaratnāvalī*, śūla 99–104; *Dhanvantari*, śūla 42).
śūlavajriṇī vaṭikā (*Bhāratabhaiṣajyaratnākara*, Nr. 7661).

CANDRAŚIKHARA
muktārājamṛgāṅkarasa (*Rasapaddhati* 199).

CATURMUKHA
caturmukharasa (*Bhaiṣajyaratnāvalī*, vātavyādhi 149–155; *Bṛhadrasarājasundara* 451; *Dhanvantari*, vātavyādhi 101; *Rasayogasāgara*, cakārādi 28; *Rasendracintāmaṇi* 95; *Rasendrasārasaṃgraha*, vātavyādhi 38–44).

DAṆḌAPĀṆI
siṃhanādaguggulu (*Bhaiṣajyaratnāvalī*, āmavāta 190–195; *Bhāratabhaiṣajyaratnākara*, Nr. 7923; *Bhāvaprakāśa*, cikitsā 29.222–228 and 237–246; Ṭoḍara V: 14.61–67; *Vaidyacintāmaṇi* 387).

DASRAS[10]
dāḍimādyaghṛta (*Bṛhadyogataraṅgiṇī* 103.87–90).
kapikacchūpāka (*Bhāratabhaiṣajyaratnākara*, Nr. 9310; *Bṛhadyogataraṅgiṇī* 147.146–152).
lakṣmaṇālauha (*Bhaiṣajyaratnāvalī*, pradara 84–86).
lakṣmaṇāloha (*Rasayogasāgara*, yakārādi 223).
lakṣmaṇātaila (*Bhāratabhaiṣajyaratnākara*, Nr. 6330).
mahākalka (*Rasaratnasamucccaya* 27.128–144).
mahāsugandhitaila (*Bṛhadyogataraṅgiṇī* 147.381–383).
vāsākūṣmāṇḍaleha (*Rasakāmadhenu* IV.9.47–48).

DEVADEVA
bastyāmayāntaka (Anantakumāra's *Yogaratnasamuccaya* 15.84–95ab).
bṛhadvāsavāvaleha (*Bhāratabhaiṣajyaratnākara*, Nr. 7012).
citrakādicūrṇa (*Bhāratabhaiṣajyaratnākara*, Nr. 1725; *Rasayogasāgara*, cakārādi 102).
kusumbhādyataila (*Gadanigraha* I, taila 170–174).
madanānandamodaka (*Bhaiṣajyaratnāvalī*, vājīkaraṇa 242–266; *Bhāratabhaiṣajyaratnākara*, Nr. 5498; *Bheṣajasaṃhitā* 6, Nr. 77).
sarveśvaracūrṇa (*Rasaratnākara* II, śūla 24–32).

DEVADEVAMUNI
tālakeśvararasa (*Rasakāmadhenu* IV.40.438–441).

DEVARĀJA
pañcānanarasa (*Rasaratnasamuccaya* 19.54–64).

DEVENDRA
vārāhyādighṛta (*Sahasrayoga* 45).

DEVĪ
agnikumārarasa (*Rasaratnasamuccaya* 18.178–195).
bṛhatsārasvataghṛta (*Rasaratnadīpikā* 276).

DHARMAPĀLA
tāmrarasāyana (*Bhāratabhaiṣajyaratnākara*, Nr. 2597; *Rasayogasāgara*, takārādi 48; Vaṅgasena, rasāyana 69–92).

GARUḌA
agnimukharasa (*Rasakāmadhenu* IV.22.43–47).

GIRIJATANAYĀVALLABHA (compare Giritanayāvallabha)
mahārāsnādikvātha (*Bhāratabhaiṣajyaratnākara*, Nr. 5885).

GIRIRĀJAPUTRĪ
pratāpalaṅkeśvararasa (Vaṅgasena, strīroga 299–301).
śītajvarāraṇyakṛśānumegha (*Rasayogasāgara*, śakārādi 115).

GIRĪŚA
bṛhacchivaguṭikā (*Gadanigraha* I, guṭikā 216–238; Vaṅgasena, vātarakta 191–212).
candrodayarasa (*Rasendracintāmaṇi* 69–70).
mṛtyuñjayarasa (*Bṛhadyogataraṅgiṇī* 147.263–264; *Rasayogasāgara*, pakārādi 681).
rasaśārdūla (HIM I, 40 and 59–60).
a rasāyana (*Rasendracūḍāmaṇi* 14.114).

GIRITANAYĀVALLABHA (compare Girijatanayāvallabha)
mahārāsnādikaṣāya (*Vaidyacintāmaṇi* 187).
mahārāsnādikvātha (*Yogaratnākara* 450).
rāsnādikvātha (*Sahasrayoga* 34).

GOPĀLADĀSA
kuṭajaleha (*Bhāratabhaiṣajyaratnākara*, Nr. 791).

HARA
kalyāṇasundarābhra (*Rasayogasāgara*, kakārādi 117).
kuṣṭhahararasa (*Rasayogasāgara*, kakārādi 300).
śītabhañjanarasa (*Rasayogasāgara*, śakārādi 121; *Vaidyacintāmaṇi* 43).
śūlarājalauha (*Bhaiṣajyaratnāvalī*, śūla 132–136; *Bhāratabhaiṣajyaratnākara*, Nr. 7660; *Rasendrasārasaṃgraha*, śūla 24–28).
śūlarājaloha (*Dhanvantari*, śūla 52).
vijayaparpaṭī (*Bhaiṣajyaratnāvalī*, grahaṇī 485–491).

HARAPĀDA
pramehagajakesarīrasa (*Rasayogasāgara*, pakārādi 265).

HARI
drutisārarasa (*Rasaratnasamuccaya* 22.41–46).
himapānaka (*Siddhaprayogalatikā* 28.11–13).
kālakandhararasa (*Rasayogasāgara*, kakārādi 211; *Vaidyacintāmaṇi* 40).

HARIPĀDA
mehagajakesarirasa (*Vaidyacintāmaṇi* 295).

HASTIN
śuṇṭhīpāka (*Rasayogasāgara*, śakārādi 149).

INDRA[11]
daśamūlyādyataila (*Gadanigraha* I, taila 412–421: given by Surendra to Nanda in order to protect Bālakṛṣṇa).

INDRAMUNI
śleṣmaśailendrarasa (*Bṛhadrasarājasundara* 313).

INDUŚEKHARA
induśekhararasa (*Bhaiṣajyaratnāvalī*, garbhiṇīroga 94–98; *Rasayogasāgara*, akārādi 349).

ĪŚA
śivāmodaka (*Bhaiṣajyaratnāvalī*, bālaroga 105–111).
vetālarasa (*Bhaiṣajyaratnāvalī*, jvara 605–612).

ĪŚĀNA
āmavātārivaṭikā (*Rasendrasārasaṃgraha*, āmavāta 1–6).

ĪŚVARA
haragaurīrasa (Harṣakīrti's *Yogacintāmaṇi* 239–240).
kālāgnirudrarasa (*Rasayogasāgara*, kakārādi 234; *Vaidyacintāmaṇi* 67).
kālakūṭarasa (*Basavarājīya* 61–62).
rājayoga (*Bhāratabhaiṣajyaratnākara*, Nr. 5928; *Gadanigraha* I, cūrṇa 377–384ab).
śītanāgāṅkuśarasa (*Sahasrayoga* 235).
sūryapāvakarasa (*Rasayogasāgara*, śakārādi 530; *Vaidyacintāmaṇi* 43).

JANAKEŚVARA
samasaktukaghṛta (Bower MS II.454–459).

KACA
nalamūlādi (*Cakradatta*, mūtrāghāta 10).

KĀLĀGNIRUDRA
rudrataila (*Bhaiṣajyaratnāvalī*, śiroroga 126–133; *Dhanvantari*, śiroroga 26).

KĀLAKAṆṬHA
kālakaṇṭharasa (*Vaidyacintāmaṇi* 197).

KĀLANĀTHA
kāleśvararasa (*Rasayogasāgara*, kakārādi 247).
mahākāleśvararasa (*Bhaiṣajyaratnāvalī*, kāsa 74–79; *Bhāratabhaiṣajyaratnākara*, Nr. 5537).

KĀLAPĀDA
bṛhatsvāyambhuvaguggulu (*Gadanigraha* I, guṭikā 365–371).

KĀMADEVA[12]
aśvagandhārasāyana (*Vaidyacintāmaṇi* 97).
kāmadevaghṛta (HIM II, 293–295).
methīmodaka (*Bhaiṣajyaratnāvalī*, grahaṇī 171–177; *Bhāratabhaiṣajyaratnākara*, Nr. 5184).
śrīmadānandamodaka (*Bhaiṣajyaratnāvalī*, vājīkaraṇa 242–266).

KAMALĀ
nārāyaṇarasa (*Vaidyacintāmaṇi* 38).

KAMALĀKARA
vamanāmṛtayoga (*Bhāratabhaiṣajyaratnākara*, Nr. 6966; *Bṛhadrasarājasundara* 441; *Vaidyacintāmaṇi* 680).

KĀŚIKA
mañjiṣṭhādyāgada (*Bhāratabhaiṣajyaratnākara*, Nr. 5684; Vaṅgasena, viṣa 137).

KATHAṆḌINĀTHA
a recipe (Ṭoḍara III: 4.407).

KESARIN
kākolyādighṛta (*Rasaratnākara* II, vātarakta 91–95).
pañcānanarasa (*Bhāratabhaiṣajyaratnākara*, Nr. 4278; *Rasaratnākara* II, āmavāta 50–60).

KUMĀRAKAS[13]
romavedharasa (*Bhāratabhaiṣajyaratnākara*, Nr. 6159).

LĀĪ
bṛhallāīcūrṇa (*Bṛhadrasarājasundara* 332–333).
lāīcūrṇa (*Rasakāmadhenu* IV.14.141–143; *Rasayogasāgara*, yakārādi 249).

LĀIKĀ
lāīcūrṇa (Ṭoḍara IV: 2.128–134).

LALITANĀTHA
lalitanātharasa (*Rasakāmadhenu* IV.7.7–16; *Rasayogasāgara*, yakārādi 214).

LOKANĀTHA
dṛṣṭaphalāpanīyavaṭikā (*Bṛhadrasarājasundara* 276–277).
jvaramātaṅgakeśarirasa (*Bhaiṣajyaratnāvalī*, jvara 875–880; *Bṛhadrasarājasundara* 296; *Rasayogasāgara*, cakārādi 223).
lokanātharasa (*Rasakāmadhenu* IV.1.425–434).
pānīyavaṭikā (*Bhaiṣajyaratnāvalī*, jvara 668–687; *Bhāratabhaiṣajyaratnākara*, Nr. 4332; *Rasayogasāgara*, pakārādi 118).

LOKASENA
sārasvatacūrṇa (*Gadanigraha* I, cūrṇa 151–154).

MADANAGOPĀLA
candrakāntarasa (*Rasayogasāgara*, cakārādi 47).

MADHUSŪDANA
bṛhacchāgalādighṛta (*Rasaratnadīpikā* 274–276).

MAHĀDEVA
bṛhadvāsāvaleha (*Bhaiṣajyaratnāvalī*, rājayakṣman 46–52).
candanādicūrṇa (Ṭoḍara IV: 7.60–67).
dadhikāsavidhūnanarasa (*Basavarājīya* 146).
hemagarbhapoṭṭalīrasa (Ṭoḍara III: 4.1134–1143).
lakṣmīvilāsarasa (*Bhaiṣajyaratnāvalī*, kāsa 130–137).
mahābhallātaka (Ṭoḍara VII: 5.251–264).
mahābhallātakaguḍa (*Bhaiṣajyaratnāvalī*, kuṣṭha 207–221; *Dhanvantari*, kuṣṭha 44).
mahābhallātakāvaleha (*Bhāvaprakāśa*, cikitsā 54.84–94; *Pākapradīpa* 469–482).
mahākālāgnirudrarasa (*Rasayogasāgara*, kakārādi 233; *Vaidyacintāmaṇi* 70).
mahākāleśvararasa (*Rasakāmadhenu* IV.1.316–321).
mahākāmeśvaramodaka (*Bhaiṣajyaratnāvalī*, vājīkaraṇa 225–241; *Dhanvantari*, vājīkaraṇa 13; *Rasaratnākara* II, vājīkaraṇa 93–101; *Rasayogasāgara*, kakārādi 195).
mārkaṇḍeyacūrṇa (*Bhaiṣajyaratnāvalī*, grahaṇī 113–117; *Rasayogasāgara*, pakārādi 571).
pānīyabhaktavaṭikā (*Rasaratnadīpikā* 169).

sahadevīprayoga (*Rasaratnasamuccaya* 24.142).
sūcikābharaṇarasa (*Rasayogasāgara*, śakārādi 473).
sūtabhasmaprayoga (*Bṛhadrasarājasundara* 447; *Dhanvantari*, apasmāra 19; *Rasayogasāgara*, śakārādi 481; *Rasendrasārasaṃgraha*, apasmāra 4).
taptarājataila (*Dhanvantari*, śiroroga 27).
vijayādivaṭī (*Bhaiṣajyaratnāvalī*, yonivyāpad 65–67).
yogeśvararasa (*Bhaiṣajyaratnāvalī*, prameha 111–115; *Rasendrasārasaṃgraha*, prameha 51–55).
recipe without a name (*Kāmaratna* 13.65–66).

MAHĀGURU
mahāpramehāntakarasa (*Rasayogasāgara*, pakārādi 293).

MAHEŚA
bṛhadagnikumārarasa (*Bhaiṣajyaratnāvalī*, agnimāndyādi 117–122; *Rasendrasārasaṃgraha*, ajīrṇa 16–20).
candanāsava (*Bhāratabhaiṣajyaratnākara*, Nr. 1812).
caturbhujarasa (*Bhaiṣajyaratnāvalī*, unmāda 52–57; *Bhāratabhaiṣajyaratnākara*, Nr. 1879; *Dhanvantari*, unmāda 37; *Rasayogasāgara*, cakārādi 26; *Rasendrasārasaṃgraha*, unmāda 20–26).
jyotiṣmān rasaḥ (*Bhaiṣajyaratnāvalī*, kuṣṭha 178–185; *Rasayogasāgara*, pariśiṣṭa 58).
kālakūṭarasa (*Bhāratabhaiṣajyaratnākara*, Nr. 9499; *Rasayogasāgara*, kakārādi 213).
kṛmidrumakuṭhārarasa (*Rasakāmadhenu* IV.20.5–7; *Rasayogasāgara*, kakārādi 329).
mahāmṛtyuñjayarasa (*Bhāratabhaiṣajyaratnākara*, Nr. 5559; *Bṛhadrasarājasundara* 501; *Rasendrasārasaṃgraha*, plīharoga 60–64).
manmathābhrarasa (*Rasayogasāgara*, pakārādi 532).
rājavallabharasa (*Bhāratabhaiṣajyaratnākara*, Nr. 6137; *Rasendrasārasaṃgraha*, grahaṇī 136–140).
śrīmanmatharasa (*Bṛhadrasarājasundara* 536; *Rasendrasārasaṃgraha*, rasāyana 2–9).

MAHEŚVARA
mahārājanṛpativallabharasa (*Bhaiṣajyaratnāvalī*, grahaṇī 371–380; *Bhāratabhaiṣajyaratnākara*, Nr. 5564; *Rasendrasārasaṃgraha*, grahaṇī 146–155).
nṛpativallabharasa (*Rasayogasāgara*, takārādi 459).

MAKAREŚVARA
rasālā (HIM I, 40 and 68: from *Bhāvaprakāśa*).

MAṆIBHADRA[14]
māṇibhadraguḍa (*Sahasrayoga* 178).
māṇibhadramodaka (HIM III, 746 and 747–748: *Cakradatta*, *Śataślokī*, *Siddhayoga*; compare A.h.Ci.19.31–32).
māṇibhadrataila (Bower MS III.10–14).
māṇibhadravaṭaka (*Gadanigraha* I, guṭikā 65–66: bestowed to Śākyabhikṣu).

viḍaṅgasārādyā guṭikā (HIM III, 746 and 748: from *Gadanigraha*; compare A.h.Ci.19.31–32).

MAÑJUNĀTHA
ardhanārīnaṭeśvararasa (*Rasayogasāgara*, akārādi 233).

MAÑJUŚRĪ[15]

MATHANABHIṢAJ
trayastriṃśatkvātha (*Gadanigraha*, kāya, jvara 480–481).

MATSYENDRA
rāmabāṇarasa (*Rasayogasāgara*, yakārādi 173).

MĀTULA
uśabāvaleha (*Bhāratabhaiṣajyaratnākara*, Nr. 9116).

MṚGACĀRIN
rājamṛgāṅkarasa (*Rasaratnasamuccaya* 17.92–99).

MṚTYUÑJAYA
ratnagarbhapoṭṭalī (Ṭoḍara III: 4.1144–1153).
vasantatilakarasa (*Bṛhadrasarājasundara* 541; HIM I, 40 and 55; Vṛddhatrayī 331).

MŪLADEVA
kāmāgnisaṃdīpanamodaka (*Bṛhadrasarājasundara* 550; *Rasayogasāgara*, kakārādi 183).

MUNI
bṛhajjvarāṅkuśarasa (*Bṛhadrasarājasundara* 318).

NAKULA
snāyvantakarasa (*Rasayogasāgara*, śakārādi 575).

NANDIN
agnikumārarasa (*Rasaratnasamuccaya* 18.178–195; *Rasayogasāgara*, akārādi 49).
amṛtārṇavarasa (*Rasaratnasamuccaya* 27.75–83; *Rasayogasāgara*, akārādi 199).
grahaṇīgajakesarīrasa (*Rasaratnasamuccaya* 16.73–83; *Rasayogasāgara*, kakārādi 538).
medinīsārarasa (*Rasaratnasamuccaya* 20.117–123; *Rasayogasāgara*, pakārādi 714).
mehahararasa (*Rasaratnasamuccaya* 17.100–107).
pramehahararasa (*Rasayogasāgara*, pakārādi 290).
sarveśvaraparpaṭī (*Rasaratnasamuccaya* 18.2–16).
vātarājavaṭī (*Bhāratabhaiṣajyaratnākara* Nr. 6994; *Bṛhadrasarājasundara* 457).

vātavidhvaṃsanarasa (*Bhāratabhaiṣajyaratnākara* Nr. 700; *Rasaratnasamuccaya* 21.118–129).

NANDINĀTHA
mahāmṛgāṅkarasa (*Rasendrasārasaṃgraha*, yakṣman 80–87).
vātavidhvaṃsanarasa (*Bhaiṣajyaratnāvalī*, vātavyādhi 182–189; *Bhāratabhaiṣajyaratnākara*, Nr. 7000; *Rasayogasāgara*, yakārādi 471; *Rasendrasārasaṃgraha*, vātavyādhi 59–65).

NANDĪŚVARA
mahodayapratyayasārarasa (*Bhāratabhaiṣajyaratnākara*, Nr. 5593; *Rasaratnasamuccaya* 15.41–49).

NĀRĀYAṆA
candanāditaila (*Vaidyacintāmaṇi* 299).
mahānārāyaṇataila (*Bhaiṣajyaratnāvalī*, vātavyādhi 343–354).
nārācarasa (*Vaidyacintāmaṇi* 237).
nārāyaṇacūrṇa (*Bhaiṣajyaratnāvalī*, atisāra 103–106; *Bhāratabhaiṣajyaratnākara*, Nr. 3436; *Dhanvantari*, atisāra 25).
śatāvarīnārāyaṇataila (*Bṛhadyogataraṅgiṇī* 90.220–231; *Vaidyacintāmaṇi* 207; *Yogaratnākara* 458).
śatāvarīrasāyana (*Vaidyacintāmaṇi* 243).
siddhārthataila (Bower MS III.36–53).

NĀSATYAS [16]
māṇikyatilakarasa (*Bhāratabhaiṣajyaratnākara*, Nr. 5597).

NĀTHA
śarkarāleha (*Rasaratnadīpikā* 335).

NĀYIKĀ
nāyikācūrṇa (*Dhanvantari*, grahaṇī 15).

NĪLAKAṆṬHA
rajaḥpravartinīvaṭī (*Bhaiṣajyaratnāvalī*, yonivyāpad 58–60).
śrīnīlakaṇṭharasa (*Bhaiṣajyaratnāvalī*, rasāyana 144–150).

NITYANĀTHA
bhṛṅgāmalakataila (*Vaidyacintāmaṇi* 240).
gulmavajriṇī vaṭī (*Bṛhadrasarājasundara* 477).
siṃhanādarasa (*Vaidyacintāmaṇi* 197).

NIVĀRAṆA
māṇibhadramodaka (Ṭoḍara IV: 3.105–106).

NṚHARI, THE SON OF JAYADEVA
kuberākṣādicūrṇa (*Vaidyacintāmaṇi* 326).

PARVATARĀJAPUTRĪ
cintāmaṇirasa (*Vaidyacintāmaṇi* 87).

PĀRVATĪ
cintāmaṇirasa (*Bhāratabhaiṣajyaratnākara*, Nr. 1932; *Rasayogasāgara*, cakārādi 120; *Yogaratnākara* 335).
śāmbhavīrasa (*Rasayogasāgara*, śakārādi 75; *Vaidyacintāmaṇi* 40).

PĀRVATĪKĀNTA
sūcikābharaṇarasa (*Rasayogasāgara*, śakārādi 467).

PĀRVATĪPATI
vātavajrarasa (*Vaidyacintāmaṇi* 198).

PINĀKIN
kaulītikā vartiḥ (*Gadanigraha*, śālākya, netraroga 272–275; *Bhāratabhaiṣajyaratnākara*, Nr. 9452).
rājayakṣmahararasa (*Rasayogasāgara*, yakārādi 152).
śāmbhavīrasa (*Rasayogasāgara*, śakārādi 75).
svarṇasindūra (HIM I, 40 and 78–79: from the *Saṃkṣiptasāra*; Vṛddhatrayī 332).
vajrakṣāra (*Bhāratabhaiṣajyaratnākara*, Nr. 6588; *Rasaratnasamuccaya* 19.24–29; *Rasendrasārasaṃgraha*, plīharoga 80–83; *Yogaratnākara* 524).

PIṄGALĀYOGINĪ
nirguṇḍīkalpa (*Bhaiṣajyaratnāvalī*, rasāyana 54).

PRAJĀPATI [17]
mahārāsnādikvātha (*Bhaiṣajyaratnāvalī*, āmavāta 28–35; *Bhāvaprakāśa*, cikitsā 26.132–142).

PURANDARA
bhārṅgīharītakyavaleha (*Yogaratnākara* 372).

PUREŚĀNA
āmavātārivaṭikā (*Bhāratabhaiṣajyaratnākara*, Nr. 398; *Dhanvantari*, āmavāta 28).

PŪRṆĀMṚTĀKHYAYOGĪNDRA
jayasundararasa (*Rasaratnasamuccaya* 22.5–14).

RASARĀJA
rogatrayārirasa (*Sahasrayoga* 237).

RATINĀTHA
pramehamihirataila (*Bhaiṣajyaratnāvalī*, prameha 228–236; *Bhāratabhaiṣajyaratnākara*, Nr. 4136; *Bheṣajasaṃhitā* 12, Nr. 43).

RUDRA
candraprabhāvarti (*Bhāratabhaiṣajyaratnākara*, Nr. 1856; *Bhāvaprakāśa*, cikitsā 63.228–230; *Yogaratnākara* 813).
cūrṇarāja (HIM I, 40 and 58; Vṛddhatrayī 330).
grahaṇīśārdūlarasa (*Bhaiṣajyaratnāvalī*, grahaṇī 281–285; *Bhāratabhaiṣajyaratnākara*, Nr. 1613; *Rasayogasāgara*, kakārādi 547; *Rasendrasārasaṃgraha*, grahaṇī 43–47).
jvarāṅkuśarasa (*Rasayogasāgara*, cakārādi 266).
kinnarəkaṇṭharasa (*Rasayogasāgara*, kakārādi 265).
putrapradarasa (*Rasasaṃketakalikā* 4.108–118; *Rasayogasāgara*, pakārādi 192).
rudrataila (*Bhaiṣajyaratnāvalī*, kuṣṭha 328–335; *Bhāratabhaiṣajyaratnākara*, Nr. 5964).
śaṃkaraloha (*Rasayogasāgara*, śakārādi 5).
sarvavyādhihara (Vṛddhatrayī 332).
śītabhañjīrasa (*Rasakāmadhenu* IV.1.648–653; *Rasasaṃketakalikā* 4.2–7).
upadaṃśebhasiṃharasa (*Rasakāmadhenu* IV.45.17–21).
vāsārudrataila (*Bhāratabhaiṣajyaratnākara*, Nr. 6790).
vijayā guṭikā (*Bhāratabhaiṣajyaratnākara*, Nrs. 7025, 7026; *Gadanigraha* I, guṭikā 461–472; *Rasakāmadhenu* IV.49.14–16).
vijayādiguṭikā (Harṣakīrti's *Yogacintāmaṇi* 119–121).

SAHASRAKARAPUTRABHIṢAGVARAS
bhārṅgīharītakyavaleha (*Yogaratnākara* 372).

ŚAILENDRATANAYĀ
śailendrarasa (*Vaidyacintāmaṇi* 457).

ŚAIVEŚVARA
a bṛhatkaraṇa (Bower MS II.782).

ŚAKRA
jātīphalādyacūrṇa (*Rasaratnadīpikā* 159).

ŚAMBHU
ānandabhairavarasa (*Rasayogasāgara*, akārādi 300).
ardhanārīnaṭeśvararasa (*Rasayogasāgara*, akārādi 239 and 241).
ardhanārīśvararasa (*Bhāratabhaiṣajyaratnākara*, Nr. 8920; *Rasendrasārasaṃgraha*, jvara 219–221; *Vaidyacintāmaṇi* 42).
atisārakuṭhāra (*Rasayogasāgara*, akārādi 107).
bastyāmayāntakacūrṇa (*Rasayogasāgara*, pakārādi 362; *Vaidyacintāmaṇi* 303).

bhairavaguggulu (*Rasayogasāgara*, pakārādi 452).
bhasmeśvaranasya (*Vaidyacintāmaṇi* 74).
bhasmeśvararasa (Cat. Madras Nr. 13225: *Vaidyayogasaṃgraha*).
bolabaddharasa (*Rasakāmadhenu* IV.15.65–69).
bṛhatsahacarataila (*Bhāratabhaiṣajyaratnākara*, Nr. 7983; *Gadanigraha* I, taila 433–436).
bṛhatsarvajvaraharalauha (*Rasaratnadīpikā* 92–93).
candraprabhā guṭikā (HIM I, 40 and 58–59).
dhanvantarirasa (*Rasaratnasamuccaya* 20.131–133; *Rasayogasāgara*, takārādi 337).
drutisārarasa (*Bhāratabhaiṣajyaratnākara*, Nr. 3219).
gandhakatailapātana (HIM I, 40 and 77).
kanakasundararasa (*Bhāratabhaiṣajyaratnākara*, Nr. 947; *Rasaratnasamuccaya* 20.49–51: taught by Śambhu to Kubera; *Rasayogasāgara*, kakārādi 18).
lokanātharasa (*Basavarājīya* 78–79; *Rasayogasāgara*, yakārādi 264).
lokeśvararasa (*Bṛhadyogataraṅgiṇī* 76.140–142; *Dhanvantari*, rājayakṣman 35; *Rasayogasāgara*, yakārādi 275; *Rasendracintāmaṇi* 143–144; *Vaidyacintāmaṇi* 66; *Yogaratnākara* 336).
mahācandrakalārasa (*Bṛhadyogataraṅgiṇī* 100.43–49ab).
mahājvarāṅkuśarasa (*Rasaratnasamuccaya* 12.39–41).
mahākalyāṇakaghṛta (*Bhāratabhaiṣajyaratnākara*, Nr. 5230).
mahāmṛtyuñjayalauha (*Bhaiṣajyaratnāvalī*, plīhayakṛt 136–145).
mahānīlakaṇṭharasa (*Bṛhadrasarājasundara* 549; *Rasayogasāgara*, takārādi 456).
mahārājanṛpativallabharasa (*Bhaiṣajyaratnāvalī*, grahaṇī 381–386; *Bhāratabhaiṣajyaratnākara*, Nr. 5565; *Rasayogasāgara*, takārādi 460; *Rasendrasārasaṃgraha*, grahaṇī 156–161).
mahāśaṅkhadrāvaka (*Bhaiṣajyaratnāvalī*, plīhayakṛt 180–193).
mahāviṣamārirasa (*Bhāratabhaiṣajyaratnākara*, Nr. 5577; *Rasakāmadhenu* IV.1.639–647).
nālikerāsava (*Bhāratabhaiṣajyaratnākara*, Nr. 3525; *Gadanigraha* I, āsava 286–291ab).
navāyasarasāyana (*Rasayogasāgara*, takārādi 376).
nīlakaṇṭharasa (*Basavarājīya* 147; *Bhāratabhaiṣajyaratnākara*, Nr. 3663; *Vaidyacintāmaṇi* 255).
nityodayarasa (*Rasaratnadīpikā* 251–252).
pāṇijaḍḍukarasa (*Rasayogasāgara*, pakārādi 95).
phaṇibhūṣaṇarasa (*Rasayogasāgara*, pakārādi 341; *Vaidyacintāmaṇi* 68).
pramehadhvāntavivasvān rasaḥ (*Rasayogasāgara*, pakārādi 272).
prāṇapradā parpaṭī (*Bṛhadyogataraṅgiṇī* 76.138–139; *Yogaratnākara* 337).
rasendrarasa (*Rasayogasāgara*, yakārādi 144; *Vaidyacintāmaṇi* 41–42).
śambhunātharasa (*Rasaratnadīpikā* 51).
śaṅkhodararasa (*Bhāratabhaiṣajyaratnākara*, Nr. 7564; *Rasakāmadhenu* IV.32.137–148).
sarvāṅgasundararasa (*Vaidyacintāmaṇi* 457).
sarvasiddhāñjana (*Kāmaratna* 13.15–16).

saubhāgyaśuṇṭhī (*Rasaratnasamuccaya* 22.116–120).
sūcikābharaṇarasa (*Rasaratnasamuccaya* 12.70–89; *Rasayogasāgara*, śakārādi 472).
sūryaprabhā guṭikā (*Vaidyacintāmaṇi* 190).
sūryaprabhā vaṭī (*Bṛhadrasarājasundara* 455–456).
trailokyatilakarasa (*Rasaratnasamuccaya* 15.66–80).
trimūrtirasa (*Vaidyacintāmaṇi* 43).
tripurāntakarasa (*Rasayogasāgara*, takārādi 210; *Vaidyacintāmaṇi* 39).
upadaṃśagajakesarirasa (*Bṛhadyogataraṅgiṇī* 117.27–31).
upadaṃśebhasiṃharasa (*Bhāratabhaiṣajyaratnākara*, Nr. 536).
vātāṅkuśarasa (*Vaidyacintāmaṇi* 193).
vātavisphoṭahararasa (*Rasayogasāgara*, yakārādi 472).
viṣamajvaraharalauha (*Rasaratnadīpikā* 90).
viṣamārīrasa (*Rasayogasāgara*, yakārādi 562).
viśvoddīpakābhra (*Bhaiṣajyaratnāvalī*, agnimāndyādi 221–224; *Bhāratabhaiṣajyaratnākara*, Nr. 7071).
vyoṣādyā guṭikā (*Gadanigraha* I, guṭikā 299–302).
vyoṣādyaguṭikāguggulu (*Bhāratabhaiṣajyaratnākara*, Nr. 6696).

ŚAMBHUNĀTHA
rasakandarparasa (*Rasayogasāgara*, yakārādi 60).

ŚAṂKARA
ajīrṇakaṇṭakarasa (*Rasakāmadhenu* IV.13.32–34).
ardhanārīnaṭeśvararasa (*Bhāratabhaiṣajyaratnākara*, Nr. 332).
daivavyapāśrayacikitsā (*Rasaratnasamuccaya* 22.60–69).
kalpatarurasa (*Bhāratabhaiṣajyaratnākara*, Nr. 968; *Rasayogasāgara*, kakārādi 106).
lakṣmīvilāsarasa (*Rasayogasāgara*, yakārādi 234; *Rasakāmadhenu* IV.1.715–721).
mahāśatāvarītaila (*Vaidyacintāmaṇi* 239).
mṛtasaṃjīvanarasa (*Rasendrasārasaṃgraha*, jvara 156–160).
nityoditarasa (*Bṛhadrasarājasundara* 359; *Rasakāmadhenu* IV.48.65–67; *Rasendracintāmaṇi* 125–126).
pañcānanavaṭī (*Rasendrasārasaṃgraha*, arśas 28–30).
pāradadruti (*Bhāratabhaiṣajyaratnākara*, Nr. 4334; *Rasakāmadhenu* IV.22.72–80).
pāśupatāstrarasa (*Rasayogasāgara*, pakārādi 146; *Vaidyacintāmaṇi* 66).
pittabhañjanarasa (*Vaidyacintāmaṇi* 234).
pūrṇacandrarasa (HIM I, 40 and 79: from *Saṃkṣiptasāra*).
rākṣasarasa (*Rasaratnasamuccaya* 16.147–148).
śaṃkaralauha (*Bhāvaprakāśa*, cikitsā 5.96–98).
śaṃkaraloha (Vaṅgasena, arśas 263–302).
śaṃkaramataloha (*Rasakāmadhenu* IV.48.109–131).
śaṃkarataila (Vṛddhatrayī 331).
śaṃkaravaṭī (*Bhaiṣajyaratnāvalī*, hṛdroga 52–56; *Bhāratabhaiṣajyaratnākara*, Nr. 7527; *Rasayogasāgara*, śakārādi 9).
śāṃkarijvarāṅkuśarasa (*Bṛhadrasarājasundara* 299).

saṃśoṣaṇarasa (*Rasakaumudī* 4.118cd–124; *Rasayogasāgara*, śakārādi 565).
śaṅkhadrāva (Vaṅgasena, udara 176–178).
siddhaharitālabhasman (*Bheṣajasaṃhitā* 5, Nr. 65).
śūlebhasiṃhinīguṭikā (*Bhāratabhaiṣajyaratnākara*, Nr. 7667; *Rasakāmadhenu* IV.21.52–56; *Rasayogasāgara*, śakārādi 181).
tālakeśvararasa (*Rasayogasāgara*, takārādi 129).
vātāṅkuśarasa (*Vaidyacintāmaṇi* 193).

SAṂTOṢANĀTHA
saṃnipātabhairavarasa (*Rasakāmadhenu* IV.1.367–368).

ṢAṆMUKHA
ṣaṇmukharasa (*Rasakaumudī* 4.27–33ab).

SARASVATĪ[18]
brāhmīghṛta (*Sahasrayoga* 70).
sārasvataghṛta (*Gadanigraha* I, ghṛta 136–141).

ŚAŚIŚEKHARA
lakṣmīvilāsarasa (*Rasayogasāgara*, yakārādi 242).

SIDDHA
nāgeśvararasa (*Rasayogasāgara*, takārādi 421).
phaṇipatirasa (*Vaidyacintāmaṇi* 194).

SIDDHANĀTHA
lokanāyakarasa (*Rasakāmadhenu* IV.15.32–38).

SIṂHAGUPTA
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E. Abegg ((1945): 5–36. ABI 7–75. K.T. Achaya (1994): 28–40. Atrideva (1978): 10–21. Th. Aufrecht (1870), *(1881). AVI 6–44 and 81–89. A.A. Ayer and A. Girija (1957). M.N. Banerjee (1927), (1929). A. Bareau (1969). E. Benveniste (1945). J.L. Bhaduri, K.K. Tiwari, Biswamoy Biswas (1971): 417–421 and 425. A.K. Biswas and S. Biswas (1996): 5–27 and 213–220. C.J. Blair (1961): 97–107 and 136–157. I. Bloch (1902): 135–138. M. Bloomfield (1886), (1890), (1891). H.W. Bodewitz (1986). G.M. Bolling (1910), (1911), (1911a), (1912). J. Brough (1971), (1973). T. Burrow (1970). W. Caland (1901), (1902). D.K. Chakrabarti (1992): 96–104 and 120–123. C. Chakraborty (1977). K.A. Chowdhury (1971): 375–378. P. Cordier (1896). R.N. Dandekar (1938), (1950), (1995). R.P. Das (1987). DGV IV, 200. P.E. Dumont (1957), (1958). K. Dvivedī (1993). V. Dvivedī (1966): 277–281. F. Edgerton (1958). T.I. Elizarenkova and V.N. Toporov (1976). R.E. Emmerick (1985). A.H. Ewing (1901). H. Falk (1989). J. Filliozat (1943), (1975). I. Fischer (1922). I. Gershevitch (1974). A.K. Ghosh and S.N. Sen (1971): 375–378. G.S. Ghurye (1979): 127–129, 220–221, 228–233, 242–244, 249–250, 266–269, 307–309. J. Gonda (1952). J.R. Haldar (1977): 11–12. J. Haudry (1988). V. Henry (1897), (1988). J. Hertel (1930). A.F.R. Hoernle (1906–1907), (1978). K. Hummel (1997). D.H.H. Ingalls (1971). K. Hoffmann (1955). O.P. Jaggi (1969): 166–220. S.W. Jamison (1986), (1987). W.A. Jayne (1925): 151–178. G.C. Jhala (1978). J. Jolly (1901): 16–17. *R.L. Jones (1995). Jyotir Mitra (1968a), (1970a), (1972a), (1979). R.N. Kapil (1970): 125–130. C.R. Karnick (1969), (1970), (1996): 11–27. C.G. Kashikar (1990). A.B. Keith (1908). S. Kramrisch (1975). A. Kuhn (1864). F.B.J. Kuiper (1969/70). P. Kutumbiah (1969): X–XV. G. Liétard (1862), (1898). A.A. Macdonell (1915). A.A. Macdonell and A.B. Keith II, 358–362. Madhūlikā (1995). S. Mahdihassan (1963), (1974), (1980b), (1981), (1982), (1982b), (1983), (1985), (1986), (1987a), *(1987b), (1988), (1989). G.P. Majumdar (1927), (1945), (1951), (1986). R.C. Majumdar (1971): 216–220. *S.Ch. Mitra (1933). J. Mulholland (1976). R.F.G. Müller (1930), (1930b), (1935d), (1942): 6–19, (1951), (1955), (1956b), (1958): 13–24, (1960a). J. Narten (1980). H. Nyberg (1995). Om Prakash (1961): 7–33, (1987): II, 58–94. A. Parpola (1995): 370–372. H.Ch. Patyal (1968/69), (1977). J. Puhvel (1970). N.A. Qazilbash (1960). M.S. Randhawa (1980): 297–300. K. Bhasker Rao (1958). W. Rau (1974). P. Ray (1986a), (1986b). S. Raychaudhuri (1986). S.P. Raychaudhuri, L. Gopal, B.V. Subbarayappa (1971): 352–354. D.V.S. Reddy (1972c). *P. Regnaud (1897). L. Renou (1955). R. Roth (1871). P. Rolland (1972). Mira Roy (1967a). N.C. Śāh and D. Baḍolā (1977). V. Sarianidi (1998). D.C. Śarmā (1968/69). P.J. Sarma (1939). T. Śarmā (1981/82): 11–16 and 44–55. Satyaprakāś (1960): 1–26. L. von Schroeder (1908): 369–376. A.L. Sharma, A.B. Seerwani and V.R. Shastry (1972). D.C. Sharma and N.H. Keswani (1974). P.V. Sharma (1964a), (1965), (1971e), (1975c), (1977a), (1979a), (1992a): 11–67, (1992b). S.D. Sharma (1980). V.R. Shastry (1963). H.E. Sigerist (1961): 148–165. R. Singh (1998). R.S. Singh (1979a). W. Slaje (1997). S.C. Śrīvāstava *(1978a), (1978b), (1978c), (1979a), (1979b), (1979c), (1979d), (1980b), (1980c), (1980d), (1982). F. Staal (1975): 201–204. R. Stuhrmann (1985). B.V. Subbarayappa (1971): 283–290. V. Śukla (1977). C. Suneson (1991). B.G.L. Swamy (1976a). P.V. Tewari (1992a). G.U. Thite (1982). A. Tivārī and Jyotirmitra (1981). M. Vallauri (1941): 20–27. Vishnu-Mittre (1970): 149–153. R. Gordon Wasson (1968), (1970), (1971), (1972), (1979). R. Gordon Wasson and D.H.H. Ingalls (1971). M.G. Weiss (1977): 7–11. G.L. Windfuhr (1985). H. Zimmer(1879), (1948). K.G. Zysk (1983), (1985a), (1993).

VEMANA
P. Hymavathi (1993): 94–97 and passim. V.V.S. Sastry (1977).

VIMALASŪRI – PAÜMACARIYA
K.R. Chandra (1970): 410–431, 450–453.

VĪRABHADRADEVA – KANDARPACŪḌĀMAṆI
R. Schmidt (1911): 603–605 and 616. L. Sternbach (1962).

VIŚĀKHADATTA
Atrideva (1956): 82–88. D.V.S. Reddy (1966): 70–75.

VIṢṆUDHARMOTTARAPURĀṆA
P.K. Gode (1946k). L. Gopal (1982). K.K. Gupta (1994). A.F.R. Hoernle (1978): 42–43. R.F.G. Müller (1955): 142, (1963): 384. P.V. Sharma (1970a): 75–80, (1972d): 37–38 and 54. R.T. Vyas (1989): 44–46.

VIṢṆUPURĀṆA
P.V. Sharma (1992a): 98–99. B.R. Shastri (1973).

VIṢṆUSMṚTI
A.F.R. Hoernle (1978): 40–42, 59–61, 209–214. J. Jolly (1893b). J.J. Meyer (1928).

YĀJÑAVALKYASMṚTI
ABI 120–121. M. Choudhury (1967). J. Jolly (1893b). J.J. Meyer (1928). A. Śarmā (1975). P.V. Sharma (1970a): 47–49.

YAJURVEDA
AVI 37–38. DGV IV, 201. J.R. Haldar (1977): 12. R.F.G. Müller (1934). *S.S. Sharma (1989). V.J. Thakar (1992).

YĀMALATANTRA[24]
S.C. Banerji (1992): 211, 214, 219.

YĀSKA
DGV IV, 216.

YOGASĀRATANTRA[25]
S.C. Banerji (1992): 188.

YOGASŪTRA
ABI 745. P.V. Sharma (1970a): 39–43.

YOGINĪTANTRA[26]
S.C. Banerji (1992): 254.

YUKTIDĪPIKĀ
A. Wezler (1990).

Addenda et corrigenda

&

Reprints

Addenda et corrigenda

Notice

The numbers of the notes to Chapter 9 of Part 2 (Suśrutasaṃhitā) of volume IA (pages 369–371) conflict with those of the corresponding chapters of volume IB (pages 489–492): the notes to volume IA begin with notes 1, 1a, 1, 2, etc., while those to volume IB begin with notes 1, 1a, 2, 3, etc.

In order to make them match, one should change the notes to volume IA by making the series begin with 1, 1a, 2, 3, etc.

The numbers of the notes to Chapters 2 to 6 of Part 3 (Aṣṭāṅgahṛdayasaṃhitā) of volume IA (pages 410–473) do not agree with the numbers of the notes to the corresponding chapters of volume IB (pages 528–594): the notes to volume IA begin with note 2, etc., whereas those to volume IB begin with note 1, etc.

Consequently, these numbers should be changed, either by making the notes to volume IA begin with 1, or making those of volume IB begin with 2.

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In all cases where the presence or absence of an asterisk (*) in an annotation disagrees with the bibliography, the latter source is decisive.

I A, XIII: Cat. Calcutta Sanskrit College IX – change IX into X.
I A, 76, l.16 from below: abut – change into: about.
I A, 80, l.1: breast milk – change into: breastmilk.
I A, 80, l.13: meausres – change into: measures.
I A, 333, l.22 from below: *Kāsikāvṛtti* – change into: *Kāśikāvṛtti.*
I A, 503, l.13: tāpa – change into: tāpa-.
I B, 15, n.145: See on karman – add: R.P. Goldman (1985).
I B, 16, n.146: M. Müller (n.d.) – change into: M. Müller (1919).
I B, 16, n.146: T.W. Rhys Davids (1899) – change into: T.W. Rhys Davids and C.A.F. Rhys Davids (1899).
I B, 19, n.205: See on the Indian hospitals for animals – add: R. Froehner (1968): 575–576.
I B, 19, n.205: *A. ʿĪsā (1928) – change into: A. Issa Bey (1928).
I B, 20, n.207: See on kārpāsa – add: D. Schlinghoff (1974).
I B, 57, n.684: See on alcoholic drinks – add: B.R. Mitra (1873).
I B, 62, n.32: S.N. Mishra (1973–74) – change into: S.N. Mishra (1974).

I B, 65, n.93: See on insanity: S. Pathak (1973–74) – change into: S. Pathak (1974); K.P. Shukla (1973–74) – change into: K.P. Shukla (1974).

I B, 65, n.93: See on psychiatric syndromes in Indian patients: E.M. Hoch *(1967) – delete *; *N.C. Surya et al. (1964) – delete *; add: J. Ananth (1978); A. Chakraborty (1964); *S. Kakar (1975); M.S. Keshavan, H.S. Narayanan and B.N. Gangadhar (1989); B. Mohan (1973); S. Rao (1966a); N.N. Sen and N. Sundararaj (1958–1960); H.K. Sukthankar and N.S. Vahia (1965); N.S. Vahia (1963).

I B, 71, n.48: *T. Elizarenkova (1987) – delete *.

I B, 78, n.34: J. Brough *(1953) – delete *; edited (by P. Chentsalrao): add *; *translated into English – delete *.

I B, 78, n.42: See on sexual fluids in Indian thought – add: B. Dossi (1998).

I B, 79, n.56: See on transvestism, homosexuality, etc., in India – add: *G.T. Artola (1975); S. Caldwell (1999a); L. Zwilling (1989).

I B, 80, n.64: see on the ātivāhikaśarīra – add: B. Dossi (1998): 139–150.

I B, 81, n.83: See on Indian embryology – add: B. Dossi (1998): 91–97.

I B, 92, n.285: See on the Indian joint family – add: A. Collins and P. Desai (1999); W. Doniger (1993); J. Mencher (1963); M. Mines (1994); L.B. Murphy (1953); T. Poffenberger (1981).

I B, 92, n.285: *G. Bose (1949), (1950) – change into: G. Bose (1949), *(1950).

I B, 92, n.285: *A. Dammann (1993) – delete *.

I B, 95, n.32: See on dreams – add: A. Crescenzi and F. Torricelli (1997).

I B, 98, n.11: See for some studies: J.D. Gode (1973–74) – change into: J.D. Gode (1973); *J.K. Ojha (1978) – delete *.

I B, 98, n.12: See for some studies: J.D. Gode (1973–74) – change into: J.D. Gode (1973).

I B, 104, n.116: See on sorcery – add: G. Obeyesekere (1975); G. Tarabout (1994).

I B, 105, n.129: See on this mātṛgaṇa – add: N.P. Joshi (1986); O.P. Misra (1989); S.K. Panikkar (1997).

I B, 106, n.154: S.N. Mishra (1973–74) – change into: S.N. Mishra (1974).

I B, 107, n.177: See on the treatment of diabetes mellitus: A.N. Chaddha (1973–74) – change into: A.N. Chaddha (1974).

I B, 108, n.177: M.C. Pandey (1973–74) – change into: M.C. Pandey (1975); Raghunathan and P.V. Sharma *(1968) – delete *; *V.K. Shah (1995): delete *.

I B, 109, n.206: See on the treatment of leprosy: A. Kumar (1973–74) - change into: A. Kumar (1974); B.P. Singh (1971–73) – change into: B.P. Singh (1973).

I B, 110, n.218: See on the treatment of śvitra: Z. Ansari (1971–73) - change into: Z. Ansari (1973).

I B, 112, n.256: P.J. Claus *(1975) – delete *; see, for example - add: B. Becker-Pfleiderer and Virchand Dharamsey (1978); M. Carrin (1999a), (1999b); A.G. Gold (1988); B. Pfleiderer (1983), *(1994); J. Richardson Freeman (1993); E. Schoembucher (1993).

I B, 112, n.264: See on the gandharvas – add: B. Dossi (1998): 139–150; F.B.J. Kuiper (1996).

I B, 113, n.271: See on the treatment of unmāda: S. Pathak (1973–74) - change into: S. Pathak (1974).

I B, 113, n.271: See on psychotherapy in India – add: S. Kakar (1986), (1990a); B.K. Ramanujam (1986), (1999); A. Roland *(1985), *(1991), (1994).

I B, 113, n.271: See on āyurvedic drugs used in treating mental disorders – add: N.C. Surya et al. (1965).

I B, 113, n.271: See on the religious treatment of mental illness – add: P. Homans (1984); V. Skultans (1988).

I B, 113, n.271: See on the treatment of mental disorders in general - add: B.B. Sethi, S. Sachdev and D. Nag (1965); See on the relevance of Yoga – N.S. Vahia et al. *(1973b) – delete *.

I B, 116, n.321: See on cancer in India – add: W.C. Bentall (1908); R.R. Cooke (1976); D.J. Jussawalla (1976a), (1976b); V.R. Khanolkar (1944a); U.K. Luthra (1976); S. Nissanga (1976); I.M. Orr (1933); J.C. Paymaster (1956); P.N. Wahi (1976); P.N. Wahi et al. (1965); P.N. Wahi, U. Kehar and B. Lahiri (1965).

I B, 116, n.321: *R. Akhtar (1978b) – delete *.

I B, 116, n.321: delete R. Akhtar and N. Izhar (1982).

I B, 117, n.336: See on filariasis in India – add: L. Bandyopadhyay (1996).

I B, 119, n.361: See on the actions of rohītaka: L.M. Singh (1973–74) - change into: L.M. Singh (1973).

I B, 120, n.389: See on grahaṇīdoṣa: O.P. Dixit (1973–74) – change into: O.P. Dixit (1974).

I B, 121, n.408: See on some studies: O.P. Dixit (1973–74) – change into: O.P. Dixit (1974).

I B, 121, n.415: See on this disease: R.D. Tripathi (1973–74) – change into: R.D. Tripathi (1974).

I B, 121, n.416: E. Thurston (1901) – delete (1901).

I B, 122, n.427: See on the treatment of kāmalā – add: M.S. Durkin-Longley (1982): 323–348.

I B, 123, n.459: See on the treatment of eosinophilia: B.P. Shaw (1973–74) – change into: B.P. Shaw (1974).

I B, 125, n.501: See on psychosomatic disease in India – add: E.M. Hoch (1965); M. Pflanz and L. Lambelet (1965).

I B, 125, n.502: See on diarrhoea in India – add: R.A. Feldman, P. Bhat and K.R. Kamath (1970); B. Lozoff, K.R. Kamath and R.A. Feldman (1975).

I B, 134, n.724: P.D. Gupta (1973–74) – change into: P.D. Gupta (1974).

I B, 134, n.725: See on the treatment of aśmarī – R.P. Singh (1973–74) – change into: R.P. Singh (1973); add: L.M. Singh, J.P. Shukla and P.J. Deshpande (1987).

I B, 135, n.733: See on the treatment of hṛdroga: G.N. Chaturvedi (1973–74) – change into: G.N. Chaturvedi (1973); See on drugs lowering the cholesterol level: D.V. Aggarwal (1971–73) – change into: D.V. Aggarwal (1973).

I B, 142, n.878: See on the treatment of karṇinī: S.K. Negi (1973–74) - change into: S.K. Negi (1974).

I B, 142, n.896: See on the treatment of pradara: S. Kumari (1973–74) - change into: S. Kumari (1974).

I B, 148, n.120: J.-A. Decourdemanche *(1913) – delete *.
I B, 142, n.888 – add: See on pradara: M.S. Durkin-Longley (1982): 290–323.
I B, 142, n.896 – add: See on the treatment of pradara: M.S. Durkin-Longley (1982): 290–323.
I B, 184, n.16: *H. Maspero – delete *.
I B, 184, n.20: D.C. Sircar (1986c) – change into: D.C. Sircar (1968c).
I B, 186, n.40: hemānta – change into hemanta.
I B, 186, n.49: See on these Śākadvīpīyabrāhmaṇas – add: K.K. Roy (1974): 699.
I B, 187, n.60 – add: Carakas are mentioned in Sphujidhvaja's *Yavanajātaka* (22.1: āhiṇḍika; ed. D. Pingree). See on references to them also: D. Pingree (1978): II, 311.
I B, 187, n.61: See on Nahapāna, Ṛṣabhadatta – add: D. Pingree (1978): I, 10–13.
I B, 188, n.73: *A. Parpola (1977) – delete *.
I B, 190, n.116: A. Weber *(1852) – delete *.
I B, 195, n.176: *critical edition – delete *.
I B, 235, n.5 – add: V.G. Rahurkar (1984).
I B, 302, n.500: *H.D. Velankar – delete *.
I B, 313, n.1: Editions of the *Suśrutasaṃhitā* – add to ed. cc: *repr., Jayakṛṣṇadāsa Āyurveda Granthamālā 34, Caukhambā Orientalia, Vārāṇasī/Dillī 1997; *repr., Krishnadas Ayurveda Series No. 51, 1998; add to ed. t: *repr., Caukhambā Āyurvijñān Granthamālā 60, Vārāṇasī 1999.
I B, 314, n.1: Translations of the *Suśrutasaṃhitā* – add: Suśruta-saṃhitā, with English translation of text and Ḍalhaṇa's commentary along with critical notes, edited and translated by Priya Vrat Sharma, Haridas Ayurveda Series 9, Chaukhambha Visvabharati, Varanasi 1999.
I B, 315, n.1: Translations of the *Suśrutasaṃhitā* – add to ed. e: *repr., edited by Jyotir Mitra, Chowkhamba Sanskrit Studies Vol. XXX, Varanasi 1998.
I B, 323, n.110: See on the preparation and use of kṣāra: S.K. Pandey (1973–74) – change into: S.K. Pandey (1974).
I B, 327, n.186: See on Indian rhinoplasty – add: T.J.S. Patterson (1974).
I B, 338, n.445: *Y.C. Roy (1916) – change into: B.J.C. Ray (1918).
I B, 349, n.689: See on betel – add: J.R. Marr (1972): 45–47.
I B, 352, n.734: See on mantha – add: S. Einoo (1985).
I B, 352, n.757: See – add: S. Einoo (1985).
I B, 352, n.758: See – add: S. Einoo (1985).
I B, 363, n.233: See on plague in India – add: D. Arnold (1991); M.N. Pearson (1995): 153–154.
I B, 370, n.4: M. Müller, n.d. – change into: M. Müller, 1919.
I B, 389, n.258: See on the Uttarakurus – add: G. Tucci (1971): II, 508, n.1.
I B, 399, n.131: see on her and her cult – add: P.K. Maity (1989): 70–81.
I B, 400, n.163: *R. Bleichsteiner (1937) – change into: *R. Bleichsteiner (1934).
I B, 403, n.12: See on Indian ophthalmology – add: K.M. Shyam Sundar (1996).
I B, 413, n.283: *P. Breton (1826) – delete *; R.H. Elliot *(1917b) – delete *.
I B, 474, n.187: *V.G. Rahurkar (1964) – delete *.

I B, 476, n.213: *L.de la Vallée Poussin (1931/32): I, 383, (1937): V, 270 – change into: *L. de la Vallée Poussin (1931/32): I, 383.
I B, 476, n.216: *E. Lamotte (1966): XI – change into: E. Lamotte (1966): XI–XIV.
I B, 479, n.267: *Edition – delete *.
I B, 479, n.268: *P.V. Sharma (1993c) – delete *.
I B, 485, n.401: Sempa Dorjee (1979) – change into: Sempa Dorje (1998).
I B, 513, n.1: Editions of the *Aṣṭāṅgahṛdayasaṃhitā* – add: *Aṣṭāṅgahṛdaya of Śrīmadvāgbhaṭa, edited by Brahmānand Tripāṭhī, Vrajajivan Ayurvijnana Granthamala 27, Delhi 1999.
I B, 516, n.1: Translations of the *Aṣṭāṅgahṛdayasaṃhitā* – add: *Aṣṭāṅga Hṛdaya of Vāgbhaṭa: the book of eight branches of Ayurveda; English translation by a board of scholars, 3 vols., Indian Medical Science Series Nos. 75, 76, 77, Sri Satguru, Delhi 1999.
I B, 564, n.102: Compare Kāṅkhorda – add: see on Kākhorda: J. Nobel (1958): I, 230–233 (see: Suvarṇaprabhāsasūtra, n.1453).
I B, 598, n.1: Translations of the *Aṣṭāṅgasaṃgraha* – add: *Aṣṭāṅga Saṁgraha of Vāgbhaṭa: the compendium of eight branches of Ayurveda; text and English translation with illustrations by a board of scholars; introduction by Vaidya Asha Ram, 3 vols., Indian Medical Science Series Nos. 74, 78, 79, Sri Satguru, Delhi 1999.
I B, 643, n.36: *E.M. Hare – delete *.
I B, 643, n.36 – add: See on musāragalva: S.K. Chatterji (1939): 71–74; G. Tucci (1971): II, 519.
I B, 679, n.62: See on the Śakas – add: D. Pingree (1978): I, 6–22.
I B, 682, n.105: See on Aparājitā – add: F.W. Thomas (1903); L.A. Waddell (1912/1913): 173.
I B, 682, n.108: See on Tārā – add: D. Kinsley (1997; see index).
I B, 683, n.120: See on Avalokiteśvara – add: J.K. Locke (1980): 405–418.
I B, 683, n.122: *N. Dutt (1939) – delete *.
I B, 683, n.124: See on Parṇaśabarī – add: F.W. Thomas (1903).
I B, 684, n.139 – add: See on sitātapatra- and uṣṇīṣavijayādhāraṇīs: F.W. Thomas (1903); L.A. Waddell (1912/1913): 173.
I B, 720, n.1191: Bhagwan Dash *(1995b), *(1998) – delete *; add: Bhagwan Dash (1999).
I B, 765, n.255: T.W. Rhys Davids (*1899: II, 65) – change into: T.W. Rhys Davids and C.A.F. Rhys Davids (1899: *II, 65).
I B, 766, n.259 – add: Jyotir Mitra (1999a).

Reprints*

* The following pages are corrected versions of the technically defective pages in Volume IA.

Sixty-three combinations of tastes are distinguished;[479] these combinations become innumerable if the after-tastes (anurasa) are also taken into consideration. Taste and after-taste are defined.[480] Successful treatment depends on the proper administration of drugs with a particular combination of tastes (26.14–28).

The list of ten guṇas[481] consists of paratva (superiority), aparatva (inferiority),[482] yukti,[483] saṃkhyā (number), saṃyoga (conjunction),[484] vibhāga (disjunction),[485] pṛthaktva (separateness),[486] parimāṇa (measurement), saṃskāra (processing),[487] and abhyāsa (repetitive practice) (26.29–35).

The relationships between the six tastes and the five mahābhutas are discussed (26.39–41).[488]

The properties and actions of each of the six tastes are elaborately described (26.43),[489] followed by relationships between tastes on the one hand, vīrya, guṇa and karman on the other; exceptions to general rules are given; the three degrees of the six chief properties (guṇa) with regard to the tastes are discussed (26.45–56).[490]

Vipāka (post-digestive taste) is dealt with; kaṭu, tikta and kaṣāya are transformed into kaṭu, amla remains amla, madhura and lavaṇa are madhura after digestion; three degrees of vipāka are distinguished (26.57–63).[491]

Vīrya is taken account of; the number of vīryas is either eight: mṛdu (soft), tīkṣṇa (sharp), guru (heavy), laghu (light), snigdha (oleaginous), rūkṣa (dry), uṣṇa (hot) and śīta (cold), or two only: śīta and uṣṇa (26.64–67).[492]

Prabhāva (specific action) is described as a property which cannot be explained, being beyond reasoning (acintya) (26.68–71).[493]

Vipāka is declared to be stronger than rasa, vīrya overcomes vipāka, and prabhāva is even stronger than vīrya (26.72).[494]

Actions of the tastes are mentioned again (26.74–79).[495]

After this long exposition of Ātreya, Agniveśa asks him to give an account of disagreeing (vairodhika) articles of food.[496] Ātreya, complying with this request, says that substances may be antagonistic to constituents (dhātu) of the body due to their properties, combination, processing, nature (svabhāva), etc. As an example he mentions the combination of fish and milk. Bhadrakāpya objects, asserting that milk may freely be taken together with fish, the fish called cilicima excepted (26.80–83).[497]

A long exposition by Ātreya on numerous antagonistic articles of diet (26.84),[498] types of antagonism (26.86–101),[499] bad effects of antagonistic foods, and the treatment of disorders resulting from disregarding the rules (26.102–106), is found at the end of the chapter.

Chapter twenty-seven, called annapānavidhi,[500] is concerned with articles of diet (annapāna) and describes their medicinal properties and actions.

The foods and drinks are divided into the following groups:[501] śūkadhānya (awned cereals; 27.8–22);[502] śamīdhānya (pulse; 27.23–34);[503] māṃsa (meat; 27.35–87);[504] śāka (vegetables; 27.88cd–124);[505] phala (fruits; 27.125–165);[506] harita (vegetables used in salads; 27.166–177);[507] madya (alcoholic drinks; 27.178–195);[508] jala (water; 27.196–216);[509] gorasa (milk and milk products; 27.217–236);[510] ikṣu (the sugarcane and its products; 27.237–242);[511] honey[512] and a disorder caused by honey (madhvā-

tients exhibiting such signs are therefore called puṣpita.[18]

Ariṣṭas relating to the smell emitted by a patient's body are described (2.8–16),[19] followed by those relating to its taste, as may be deduced from its attractiveness to various kinds of insects (2.17–22).

Chapter three, called parimarśanīya, is about fatal signs to be ascertained by means of palpation (parimarśana, sparśa), followed by some other categories of ariṣṭas.

Rules for palpation and inauspicious abnormalities found by means of this procedure are described (3.4–5).[20]

The physician should also examine the patient's way of breathing (ucchvāsa), the region of the carotid arteries (manyā), the teeth, eyelashes, eyes, hair of the head and body, belly, nails and fingers. Fatal signs relating to breathing and signs occurring in the mentioned parts of the body are described (3.6).

Chapter four, called indriyānīka,[21] is concerned with ariṣṭas pertaining to the functions of the senses; this category has to be determined by means of inference (anumāna) (4.3–4).[22] Many fatal signs of this type are described.[23]

Chapter five, called pūrvarūpīya,[24] deals with fatal prodromes (pūrvarūpa).[25] In general, presence of the complete set of prodromes of a particular disease indicates a fatal outcome (5.3–5). Prodromes, pointing to the severe character of a series of particular diseases, are described. Dreams (svapna) form a conspicuous element among these fatal signs (5.6–25).[26]

Numerous dreams auguring imminent death or great anguish (dāruṇāḥ svapnāḥ) are described (5.27–39).[27] Healthy persons, having the same dreams, may sometimes escape this fate (5.40). The dāruṇa dreams are explained as having an organic basis (5.40–41).[28]

Seven types of dreams are distinguished: based on visual perceptions (dṛṣṭa), based on auditory perceptions (śruta), perceptions by other senses (anubhūta),[29] based on wishes (prārthita), based on imagination (kalpita), pointing to future events (bhāvika), and based on disturbances of the doṣas (doṣaja) (5.43). The first five types have no effects (aphala);[30] the same applies to dreams experienced during day-sleep and to those which are very short or very long[31] (5.44).[32] Dreams occurring during the first part of the night have weak results (5.45ab).[33] The effect of a dream becomes operative at once if one does not sleep again after dreaming it (5.45cd).[34] The prognostic meaning of an inauspicious dream is annulled when it is followed by one to be regarded as auspicious (5.46).[35]

Chapter six, called katamāniśarīrīya, describes signs which should make the physician decide to give up treatment.[36]

Chapter seven, called pannarūpīya,[37] deals with the prognostic significance of a patient's chāyā, praticchāyā and prabhā (7.3–17), followed by various ariṣṭas (7.18–31).

Individuals are of three types according to their measurement: short, medium

(9.89cd–94);[277] treatment of unmāda in the same way as apasmāra (9.95);[278] the prevention of unmāda (9.96); the signs indicating recovery (9.97).

Recipes provided with a name are: kalyāṇakaghṛta (9.33cd–42ab),[279] mahākalyāṇakaghṛta (9.42cd–44),[280] mahāpaiśācikaghṛta (9.45–48),[281] laśunādyaghṛta (9.49–51), and a second laśunādyaghṛta (9.52–56).[282]

Chapter ten, on apasmāra (epilepsy), deals with: a definition of this disease (10.3);[283] its aetiology (10.4–5) and pathogenesis (10.6–8ab);[284] the four types of apasmāra: caused by vāta, pitta, kapha and saṃnipāta; their symptoms[285] and degrees of curability; the intervals between the attacks (10.8cd–13); treatment of apasmāra (10.14–52);[286] apasmāra, in which an āgantu factor is secondarily (as an anubandha) involved,[287] added to the doṣic aetiology, should be treated in the same way as the āgantu type of unmāda (10.53); the aetiology, pathogenesis (saṃprāpti), symptomatology and therapy of the major disease (mahāgada) called atattvābhiniveśa (10.54–63);[288] the treatment of chronic (cirakārin) epilepsy which has acquired a firm footing (kṛtāspada) (10.64–65); precautions to be taken by a patient suffering from apasmāra (10.66).

Recipes provided with a name are: pañcagavyaghṛta (10.16–17)[289] and mahāpañcagavyaghṛta (10.18–24).[290]

Chapter eleven is concerned with kṣatakṣīṇa (injury to the chest and its effects).[291]

The subjects dealt with are: the aetiology of this disease (11.4–8); its pathogenesis; kṣata (injury) of the chest leads to kṣaya (wasting), due to deficiency of śukra and ojas (11.9–12ab); the prodromes[292] and symptoms (11.12cd–13); the degrees of curability (11.14); treatment (11.15–95).

Recipes provided with a name are: elādiguṭikā (11.21–24),[293] amṛtaprāśaghṛta (11.35–43),[294] śvadaṃṣṭrādighṛta (11.44–47), five varieties of sarpirguḍa (11.50–55, 56–61, 62–65, 66–69, 70–77),[295] saindhavādicūrṇa (11.85–87), and ṣāḍava (11.88–90).

Chapter twelve is about śvayathu (swelling).[296]

It deals with the following subjects: the classification of the types of this disorder: caused by vāta, pitta and kapha, nija and anija (= āgantu), localized (ekāṅgaja) and generalized (sarvaja)[297] (12.4);[298] the aetiology of the nija and āgantu types (12.5–7ab);[299] three varieties of the nija and āgantu types according to their seat: the whole body, half of it, or part of it (12.7cd); the saṃprāpti of śvayathu (12.8); śvayathu occurring in the upper (ūrdhvaga), lower (adhoga) and middle part (madhyaga) of the body, śvayathu of the whole body (sarvāṅgaga), and localized forms, called after the part affected (12.9); the prodromes (12.10ab); all varieties of śvayathu are caused by the three concerted doṣas, but they are designated after the predominant doṣa and treated accordingly (2.10cd); the symptoms of śvayathu in general (12.11); the symptoms of śvayathu with a predominance of vāta (12.12), pitta (12.13) and kapha (12.14);[300] six fatal complications (12.15);[301] signs indicating curability (12.16ab); the treatment of śvayathu[302] (12.16cd–73).[303]

of rakta is bile (pitta); the waste products of māṃsa consist of the impurities of the bodily orifices; the waste product of medas is sweat (sveda), of asthi the hairs of head (keśa) and body (loman), of majjā the fatty substance (sneha) of eyes, faeces and skin; these substances support (upasaṃstambha) each other and maintain the body (15.18–19).

The intake of aphrodisiacs (vṛṣya) accelerates the processes described. Some are of the opinion that the process of conversion of the bodily elements (parivartana) is completed in a period of six days; however, the transformational processes (parivṛtti) take place continually in a cyclic way (cakravat) (15.20–21).[397]

On the request of his pupil, Ātreya explains the changes of the properties of the bodily elements in the course of the transformational processes (15.22–35).[398]

The vyāna disperses the element rasa continually throughout the body; a local morbid alteration (vikṛti) appears if this moving about of rasa is blocked at a particular place due to pathological changes of channels (khavaiguṇya); the doṣas are subsequently excited at that very place (15.36–38ab).

The digestive fire is the chief one (adhipa) among all the bodily fires (paktar), which are dependent on it. For this reason it should be carefully protected, since, otherwise, grahaṇīdoṣa may develop (15.38cd–41).

The aetiology of disorders of the digestive fire (agnidoṣa) is described,[399] followed by their symptoms, in combination with excitation of one of the three doṣas (15.42–49).

The actions on the dhātus of a normal digestive fire and of a disordered fire are described (15.50–51ab).

A weak digestive fire leads to incomplete digestion (vidāha) of the ingested food, which then moves upwards or downwards; the disorder is called grahaṇīgada if it moves downwards. The symptoms are described, followed by the prodromes (15.51cd–55).[400]

The grahaṇī and its functions are dealt with (15.56–57).[401]

The aetiology and symptomatology of grahaṇīdoṣa caused by vāta, pitta, kapha and saṃnipāta are discussed.[402] The three disorders of the digestive fire mentioned in the rogānīka chapter[403] are included under the heading of grahaṇīdoṣa (15.58–72).

The remaining part of the chapter is devoted to the treatment of grahaṇīdoṣa[404] and agnidoṣa (15.73–243).

Recipes provided with a name are: daśamūlādyaghṛta (15.82–86),[405] tryūṣaṇādyaghṛta (15.87),[406] pañcamūlādyaghṛta and -cūrṇa (15.88–93), citrakādyaguṭikā (15.96–97), maricādyacūrṇa (15.98–110),[407] takrāriṣṭa (15.117cd–121),[408] candanādyaghṛta (15.125–128), nāgarādyacūrṇa (15.129–131),[409] bhūnimbādyacūrṇa (15.132–133), kirātādyacūrṇa (15.134–140),[410] madhūkāsava (15.146–149),[411] durālabhāsava (15.152–155),[412] mūlāsava (15.156–159), piṇḍāsava (15.160–162), madhvariṣṭa (15.163–167), ṣaṭpalaghṛta (15.168–170),[413] kṣāraghṛta (15.171–172),[414] and several kinds of kṣāra (15.177–193).

Chapter sixteen is concerned with pāṇḍuroga (morbid pallor and related disorders).[415]

Subjects dealt with are: the five types of pāṇḍuroga, caused respectively by vāta, pitta, kapha, saṃnipāta and the eating of earth (mṛdbhakṣaṇa)[416] (16.3);[417]

quickly as possible (17.68cd–69).

The remaining part of the chapter (17.70–151)[463] is devoted to treatment[464] (17.68–150).[465]

Recipes provided with a name are: muktādyacūrṇa (17.125–128), tejovatyādighṛta (17.141cd–144),[466] and manaḥśilādighṛta (17.145–146).

Chapter eighteen is concerned with kāsa (cough).[467]

Its subjects are: the five types of kāsa: three types caused by the doṣas, one caused by a trauma (kṣata), and one caused by wasting (kṣaya);[468] they lead to wasting when they are progressive (18.3–4); the prodromes (18.5);[469] the saṃprāpti (18.6–8);[470] the causes of the specific characteristics (18.9); the aetiology and symptomatology of kāsa brought about by vāta (18.10–13),[471] pitta (18.14–16),[472] kapha (18.17–19),[473] injury to the chest (uraḥkṣata) (18.20–23),[474] and wasting (18.24–29a);[475] kāsa due to wasting is fatal in wasted (kṣīṇa) patients, but curable in strong ones; kāsa of traumatic origin is palliable in strong patients; both types are sometimes curable if they are of recent origin and correctly treated; kāsa appearing in old age (jarākāsa) is palliable (18.29–30).[476]

The remaining part of the chapter is devoted to treatment[477] (18.31–190).[478]

Recipes provided with a name are: kaṇṭakārīghṛta (18.35),[479] pippalyādighṛta (18.36–38),[480] tryūṣaṇādyaghṛta (18.39–42),[481] rāsnāghṛta (18.43–46),[482] citrakādileha (18.53–56), agastyaharītakī (18.57–62),[483] daśamūlādighṛta (18.123–124),[484] a second kaṇṭakārīghṛta (18.125–128), kulatthādighṛta (18.129),[485] dvipañcamūlādighṛta (18.158–160), guḍūcyādighṛta (18.161–162),[486] harītakīleha (18.168–169), and padmakādileha (18.174–175).[487]

Chapter nineteen gives an exposition on atīsāra (diarrhoea).[488]

It begins with a story on the first appearance[489] of this disease. During the first age of the world (ādikāla) the sacrificial animals were not killed, but only taken hold of. Later, after Dakṣa's sacrifice,[490] the animals began to be consecrated (prokṣaṇa)[491] with their own consent (abhyanujñāna), in the sacrificial rites (kratu) of the sons of (Vaivasvata) Manu, called Nariṣyant, Nābhāga, Ikṣvāku, Nṛga, Śaryāti,[492] etc. Still later, Pṛṣadhra[493] started sacrificing cattle, because other animals were not available for his prolonged soma ritual (dīrghasattra).[494] This made all creatures grief-stricken, and, when the meat of these cattle was consumed, all creatures began, because of their mental affliction and, consequently, by an impaired digestive fire, to suffer from diarrhoea, due to the properties of this inauspicious (aśasta) food (19.4).

The chapter proceeds with: the description of the aetiology[495] and symptomatology of atīsāra caused by vāta (19.5), pitta (19.6), kapha (19.7);[496] two saṃnipāta types of atīsāra[497]; degrees of curability[498] (19.8–10); atīsāra due to fear (bhaya)[499] and grief (śoka);[500] the last two types, of a mental and exogenous nature, present the same symptoms as atīsāra caused by vāta (19.11).[501]

The remaining part of the chapter is devoted to the treatment of the curable kinds of the six types of atīsāra[502] (19.12–122).[503] A recipe called cāṅgerīghṛta is mentioned (19.43).[504]

enumerated, followed by the characteristics of persons who are bitten by these three kinds,[584] by a pregnant (garbhiṇī) snake,[585] and by one who has given birth (sūtā);[586] a four-footed snake, born from a godhā, is called a gaudheyaka and resembles a black snake (kṛṣṇasarpa);[587] several other crossbreeds (miśrajāti) are known;[588] the characteristics of serious (bhṛśābādha) and less serious bites (23.130–135); the black snake when young, the gonasa[589] of advanced age, and the adult rājīmant are like āśīviṣa (23.136);[590] the four fangs of venomous snakes, their colours, the quantity of poison they contain (23.137–139); the two kinds of poisonous kīṭas,[591] arising from the faeces and urine of snakes: those containing dūṣīviṣa (slowly acting poison) and those containing prāṇahara (deadly) poison; the characteristics of the bites of these kīṭas and the symptoms produced (23.140–143); the signs and symptoms of a bite by a dūṣīviṣa spider (lūtā) and of spiders in general (23.144–146);[592] the signs and symptoms of bites and stings by a rat (ākhu, mūṣika),[593] lizard (kṛkalāsaka),[594] scorpion (vṛścika),[595] kaṇabha,[596] ucciṭiṅga,[597] frog or toad (maṇḍūka),[598] fish (matsya), leech (jalaukas),[599] gecko (gṛhagodhikā),[600] centipede (śatapadī),[601] gnat (maśaka),[602] fly or bee (makṣikā),[603] and sthagikā[604] (23.147–158); bites leading to death (23.159–161ab);[605] factors aggravating the effect of poison (23.162); snakes whose venom has a mild effect (23.163);[606] anger is the releasing factor of venom in snakes (23.164);[607] vāta predominates in the poison of ucciṭiṅga and scorpion, vāta and pitta in that of kīṭas, kapha in that of the kaṇabha, etc.; treatment should consist of the prescription of substances counteracting these doṣas (23.165–166); the symptoms produced by a poison in which respectively vāta, pitta or kapha predominates (23.167–169); treatment of the bites and stings mentioned (23.170–174);[608] the bite of a dog excites the three doṣas and corrupts the bodily elements; the symptoms of a dogbite;[609] the bites of other fierce animals (vyāla); poisonous and non-poisonous bites (23.175–178); treatment of diverse kinds of poisoning[610] (23.179–249);[611] the section on treatment mentions a poisonous animal called viśvambhara (23.214);[612] the condition called śaṅkāviṣa, i.e., the anxiety of someone who thinks to have been bitten (by a snake), is described, as well as its treatment (23.221–223);[613] things wholesome and wholesome to victims of poisoning (23.224–228);[614] the symptoms of poisoning by quadrupeds and its treatment (23.229–232); gara, prepared and administered mixed with food by women afraid to lose the favour of their husband or lover, is also dealt with, followed by the treatment of the victim (23.233–240).[615]

The chapter ends with measures to be taken immediately after a bite (23.250–253)[616] and a concluding verse (23.254.)

Recipes with a name are pañcaśirīṣāgada (23.212–218)[617] and amṛtaghṛta (23.242cd–249).[618]

Chapter twenty-four is about madātyaya (alcoholism and its complications).[619]

Its subjects are: the eulogy of surā,[620] honoured by gods and sages, used as an oblation in the sautrāmaṇī ritual,[621] etc.; the advice to use it properly (24.3–10); the proper way in general of consuming alcoholic drinks (madya) (24.11–20);[622] special prescriptions[623] for persons with a vātika, paittika or ślaiṣmika constitution (24.21–23),[624] applicable to those who are wealthy or on the path to prosperity (24.24);

gauḍika[625] and paiṣṭika[626] drinks are suitable to those with a vātika constitution, mārdvīka[627] is suitable to a paittika, mādhava[628] to a ślaiṣmika constitution (24.25); the properties and actions of alcoholic drinks made from many different substances (24.26–28); alcoholic drinks, after reaching the heart, disturb the ten properties of ojas by their own ten qualities, thus causing mental disorder (24.29); the ten properties of alcoholic drinks are: laghu (light), uṣṇa (hot), tīkṣṇa (sharp), sūkṣma (subtle), amla (sour), vyavāyin (relaxation-promoting), āśuga (quickly acting), rūkṣa (dry), vikāśin (diffusive), and viśada (clear); the ten properties of ojas are: guru (heavy), śīta (cold), mṛdu (soft), ślakṣṇa (smooth), bahala (gross),[629] madhura (sweet), sthira (immobile), prasanna (slowly acting), picchila (mucilaginous), and snigdha (oleaginous); the properties of an alcoholic drink counteract those of ojas in the following way: laghu is contrary to guru, uṣṇa to śīta, amla to madhura, tīkṣṇa to mṛdu, āśuga to prasanna, rūkṣa to snigdha, vyavāyin to sthira, vikāśin to ślakṣṇa, viśada to picchila, sūkṣma to sāndra;[630] thus sattva, residing there (i.e., in the seat of ojas, the heart), is quickly disturbed and brings about mada (intoxication) (24.30–34);[631] the heart is the seat of the channels (mārga) transporting rasa, vāta, etc., as well as the seat of sattva, buddhi, the senses, and the primary ojas;[632] for that reason the heart, and the dhātus located there, are pathologically changed by the immoderate use of alcoholic drinks and the damage of ojas resulting therefrom (24.35–36);[633] the first stage of intoxication[634] is characterized by stimulation (pratibodhita) of the heart, without any damage (avihata) to the ojas; the ojas is slightly damaged in the second stage, more seriously so in the third stage; a paiṣṭika alcoholic drink does not cause damage to the ojas, because the properties vikāśin, rūkṣa and viśada are not predominant in it (24.37–38); alcoholic drinks produce mental changes (vikāra) of a rājasa and tāmasa character, culminating in confusion and sleep when used in excess; this pathological state caused by alcohol (madyavibhrama) is called mada (intoxication) (24.39–40); three stages (prathama, madhyama, antya or uttama) of intoxication are described; a special variety, between the second and third stages, occurring in those of a rājasa or tāmasa character, is added (24.41–51);[635] the dangers of the improper and immoderate use of alcohol,[636] and its merits as a medicinal substance (24.52–60); the beneficial effects of alcohol (24.61–67);[637] alcoholic drinks are harmless when one pays due regard to the three types of foods, to drinks, age, disorders (vyādhi), strength, time, doṣa and character (sattva); this correct use is called yukti; a person with a sāttvika character may enjoy all the merits of alcohol (24.68–70); the mind (sattva) is stimulated in the first stage of mada, it loses its lucidity in the second stage, extremely so in the third stage; alcohol exposes the qualities of one's character, as fire exposes the qualities of gold (24.71–73); the sāttvika, rājasa and tāmasa ways of enjoying drinks (āpāna) (24.74–79); circumstances which make drinking for particular types of persons into a pleasant activity; persons who get drunk by a small quantity of alcohol (24.80–87); the aetiology and symptomatology of madātyaya dominated by vāta, pitta, kapha, and the three doṣas (24.88–100);[638] the general symptoms of madātyaya (24.101–106); general principles regarding the treatment of madātyaya; kapha is to be counteracted first, pitta and vāta being secondarily involved; a disorder caused by a particular alcoholic beverage is alleviated by the administration of the same drink[639]

the list (26.117cd).

Five types of śiroroga (diseases of the head) are described: caused by vāta, pitta, kapha, saṃnipāta, and parasites (krimi) (26.118).[746]

Four types of mukharoga (diseases of the oral cavity) are described: caused by vāta, pitta, kapha, and saṃnipāta (26.119–122ab);[747] their number is sixty-four[748] with regard to their location (saṃsthāna), corruptible element(s) affected (dūṣya), symptoms (ākṛti),[749] and name; the aetiology, symptomatology and treatment of these sixty-four diseases are discussed in surgical textbooks (śālākyatantra); the treatment of the four types mentioned will be described in the present treatise (26.122cd–123).[750]

Arocaka (anorexia) is of several types.[751] The symptoms of this disease, when caused by vāta, pitta and kapha, are described. Loss of appetite is the only symptom of the psychogenic varieties, brought about by grief, anxiety, greed, anger, disgusting smells, and foods which are disgusting to look at (26.124–126).[752]

Four types of karṇaroga (ear disease) are described: caused by vāta, pitta, kapha and all three doṣas (26.127–128).[753]

Four types of netraroga (eye disease) are described: caused by vāta, pitta, kapha and all three doṣas; the treatises on śālākya deal with ninety-six of these diseases; the present treatise does not attempt to discuss them, because they belong to the domain of others (parādhikāra) (26.129–131).[754]

Khalati (baldness) arises when the bodily heat (tejas), together with vāta, etc., burns the scalp (keśabhūmi); when this action is mild, the hair turns grey (palita) or brown (hariprabhatva) (26.132).[755]

The diseases of the supraclavicular region (ūrdhvajatrūtthagada) have partially been described now in order to fill up a lacuna (aśūnyatārtha) (26.133ab).[756]

The remaining part of the chapter is devoted to the treatment of pratiśyāya, pīnasa, and other diseases of the nose (26.134–157),[757] diseases of the head (26.158–186),[758] diseases of the teeth, oral cavity and throat (26.187–214),[759] arocaka (26.215–220),[760] diseases of the ears (26.221–230),[761] diseases of the eyes (26.231–262ab),[762] baldness,[763] greying of the hair, wrinkles, etc. (26.262cd–282),[764] and the five types of svarabheda (disorders of the voice): caused by vāta, pitta, kapha, blood, and saṃnipāta (26.283–290).[765]

Recipes with a name are: aṇutaila (26.239–241ab),[766] māyūraghṛta (26.158–165),[767] mahāmāyūraghṛta (26.166–174),[768] kālakacūrṇa (26.194cd-196ab),[769] pītakacūrṇa (26.196cd–198ab),[770] khadirādiguṭikā and -taila (26.206–214), sukhāvatī varti (26.252–253),[771] dṛṣṭipradā varti (26.254–256ab),[772] and mahānīlataila (26.268cd–276ab).[773]

Chapter twenty-seven, on ūrustambha,[774] begins with Agniveśa asking his teacher whether there is a disease not amenable to treatment by means of pañcakarman and nevertheless curable. Ātreya replies that ūrustambha is such a disease (27.3–7).

The aetiology, pathogenesis, symptoms and prodromes of this disease are described; when āma (undigested matter), which has accumulated in the viscera, has, together with medas, obstructed vāta and the other doṣas, it descends, owing to its heaviness, to the thighs (ūru) and lower parts of the legs, impairing their mobility;

(vyakta) signs are the specific symptoms (ātmarūpa), while slight signs indicate subsidence (apāya) of the disease (28.19cd–20ab).

The general symptoms of excited vāta are enumerated (28.20cd–23). Peculiarities concerning cause(s) and location lead to particularities of the diseases which arise (28.24ab).

The symptoms of the disorders which appear when corrupted vāta has become lodged in a particular part or constituent of the body, or the whole body, are dealt with in the next section. The parts mentioned are: the viscera (koṣṭha), the whole body, ano-rectal region (guda), receptacle of undigested food (āmāśaya),[783] receptacle of digested food (pakvāśaya),[784] sense organs (indriya),[785] skin (tvac),[786] blood (rakta), muscular and fatty tissues (māṃsa and medas), bones and bone marrow (asthi and majjā), semen (śukra), cords (snāyu), vessels (sirā), and junctures (sandhi)[787] (28.24cd–37).

Several specific diseases are described in the section that follows. These diseases are: ardita (facial paresis) (28.38–42),[788] manyāstambha (28.43a-c),[789] antarāyāma (28.43d–45c),[790] dhanuḥstambha or bahirāyama (28.45d–48),[791] hanugraha (lockjaw) (28.49–50ab),[792] ākṣepaka (convulsions) (28.50cd–51ab),[793] daṇḍaka (28.51cd–52ab),[794] curable and incurable forms of the diseases mentioned (ardita up to daṇḍaka) (28.52cd–53ab), pakṣavadha (hemiplegia) (28.53cd–54),[795] ekāṅgaroga (paresis or paralysis of one limb)[796] and sarvāṅgaroga (tetraplegia) (28.55),[797] gṛdhrasī (sciatica) and its two varieties (28.56–57ab),[798] and khallī (28.57cd).[799]

The remaining disorders should be known from the signs characteristic of the seat (of vāta) (28.58ab); the combination of vāta with pitta, etc., should also be taken into consideration (28.58cd).

Excitation of vāta comes about through deficiency of dhātus and obstruction of pathways (mārgāvaraṇa);[800] vāta, pitta and kapha move through all the channels; only vāta, due to its subtleness, is able to make the other two move about; when excited, it agitates the other two, hurling them to various places, where, due to this, diseases appear, brought about by pathways which are obstructed, thus leading to drying up of rasa, etc. (28.59–61ab).[801]

The symptoms of the disorders are described which are the result of vāta being obstructed (or: covered, āvṛta) by pitta, kapha, blood, muscular tissue, fatty tissue,[802] bone tissue, bone marrow, semen, food (anna), urine or faeces (28.61cd–72ab).[803]

Curable with difficulty or incurable are, due to their deep-seatedness: luxation of joints (sandhicyuti),[804] lockjaw (hanustambha), contractures (kuñcana),[805] kyphoscoliosis (kubjatā),[806] ardita, hemiplegia (pakṣāghāta),[807] desiccation (saṃśoṣa)[808] of parts of the body,[809] paṅgutva,[810] khuḍavātatā,[811] stambhana,[812] āḍhyavāta,[813] and the diseases caused by vāta when lodged in bones or bone marrow. These diseases may be treated when of recent origin, free from complications, and occurring in strong patients (28.72cd–74).[814]

The treatment of the diseases described is discussed[815] (28.75–198).[816] Additional disorders referred to are: desiccation of a foetus (28.95) and of young children (28.95), vāta lodged in the cardiac region (28.96), umbilical region (28.97), arms (28.98) and head (28.98).

one in tuṣodaka (12.35ab), one kind of surā (12.35cd),[101] one in a kaṣāya of kampillaka (12.35cd),[102] and five in a ghee.[103]

Three hundred and fifty-five emetic and two hundred and forty-five purgative preparations have thus been described, making a total of six hundred; all these preparations are mainly based on fifteen drugs (12.41–42).

The remaining part of the chapter is devoted to a number of interconnected subjects.

Some verses deal with general principles relating to compound recipes, the interaction of drugs, their potentiation (balādhāna), etc. (12.43–50).[104]

The next group of verses (12.51–86) is concerned with general rules relating to the treatment of patients with emetic and purgative measures. These evacuative measures are of three types: drastic (tīkṣṇa), of medium strength (madhya), and mild (mṛdu) (12.51–57). Diseases are of three types too: severe (tīkṣṇa), of medium strength (madhya), and mild (mṛdu), according to the number of symptoms present (12.58).

Dosages are important in this context, which explains that the units of weight (māna, pramāṇa, parimāṇa) are discussed (12.87–97): 6 dhvaṃśī[105] = 1 marīci; 6 marīci = 1 sarṣapa; 8 (rakta)sarṣapa = 1 taṇḍula;[106] 2 taṇḍula = 1 dhānyamāṣa; 2 dhānyamāṣa = 1 yava;[107] 4 yava = 1 aṇḍikā; 4 aṇḍikā = 1 māṣaka,[108] also called hema and dhānyaka; 3 māṣaka = 1 śāṇa; 2 śāṇa = 1 draṅkṣaṇa, also called kola and badara; 2 draṅkṣaṇa = 1 karṣa,[109] also called suvarṇa, akṣa, biḍālapadaka, picu, pāṇitala, tinduka, and kavalagraha; 2 karṣa = 1 palārdha (half a pala), which is also called śukti and aṣṭamikā; 2 palārdha = 1 pala,[110] also called muṣṭi,[111] prakuñca, caturthikā, bilva, ṣoḍaśikā, and āmra; 2 pala = 1 prasṛta,[112] also called aṣṭamāna; 4 pala = 1 añjali,[113] also called kuḍava;[114] 2 kuḍava = 1 mānikā; 4 kuḍava = 1 prastha;[115] 4 prastha = 1 āḍhaka,[116] also known as pātra; 8 prastha = 1 kaṃsa; 4 kaṃsa = 1 droṇa,[117] also called armaṇa, nalvaṇa, kalaśa, ghaṭa, and unmāna; 2 droṇa = 1 śūrpa or kumbha; 2 śūrpa = 1 goṇī, also called khārī[118] and bhāra;[119] 32 śūrpa = 1 vāha; 100 pala = 1 tulā.[120]

Rules are given for the dosages of fresh and dried medicinal substances,[121] the ratios of liquids in relation to the drugs in a compound recipe, etc. (12.98–101).[122] The preparation of fat-containing compound drugs (oils, ghees) is described; this so-called snehapāka is of three types: mṛdu (mild), madhya (medium), and khara (firm), according to the consistency of the final product; the indications of these three products of snehapāka are mentioned (12.102–104).[123]

The two systems of weights and measures which are employed in medicine are referred to in a verse considered to be spurious (anārṣa) by Cakrapāṇi; the Māgadha system is said to be superior to the Kāliṅga system (12.105).[124]

makes the fixed (sthira) doṣas flow out (viṣyandayati) of the body after application of sneha, as fire acts upon damp wood; śodhana (purification) eliminates the impurities (mala = doṣa), as dirt is removed from a cloth by water (6.11–13); a purificatory drug should not be taken during a disorder of digestion (ajīrṇa) (6.14); characteristics of a proper dose (6.15–17); the preparatory diet (6.18–19ab); the signs of proper elimination (6.19cd–20); removal of the remains of too large a dose (6.21–22ab);[33] the treatment to be applied when the signs of proper digestion of the drug are not observed (6.23); after-treatment (6.24); the treatment to be applied when kapha and pitta are only slightly eliminated (6.25);[34] signs indicating proper and improper digestion of the drug (6.26–27); types of improper administration (6.28); ten disorders (vyāpad) due to improper purification are enumerated:[35] ādhmāna (tympanitis), parikarti,[36] srāva,[37] hṛdgraha,[38] gātragraha,[39] jīvādāna (bleeding), vibhraṃśa,[40] stambha (stiffness), upadrava (complications), and klama (exhaustion) (6.29–30); cases of wrong application of purificatory measures and their treatment (6.31–57);[41] the symptoms and treatment of ādhmāna (6.58–60),[42] parikartikā (6.61–67),[43] parisrāva (6.68–70),[44] hṛdgraha (6.71–75),[45] aṅgagraha (= gātragraha) (6.76–77), jīvādāna (6.78–84),[46] the three types of vibhraṃśa: gudabhraṃśa (prolapse of the rectum), saṃjñānāśa (loss of consciousness), and a syndrome characterized by kaṇḍū (itching) and other signs (6.85–87), stambha (6.88–89),[47] upadrava (6.90–91),[48] and klama (6.92–93).[49]

Chapter seven, called bastivyāpatsiddhi, deals with the disorders caused by the improper administration of enemas.

Twelve of these disorders (vyāpad) are enumerated: deficient application (ayoga), over-application (atiyoga), klama (exhaustion),[50] ādhmāna (tympanitis), hikkā (hiccup), hṛtprāpti,[51] ūrdhvatā (moving in an upward direction),[52] pravāhikā,[53] śiro'rti (headache), aṅgārti (pains in the whole body), parikarta,[54] and parisrava[55] (7.5–6).

The causes, symptoms and treatment of these disorders are described: ayoga (7.7–11), atiyoga (7.12–14), klama, due to a remnant of āmadoṣa (7.15–20),[56] ādhmāna (7.21–26),[57] hikkā (7.27–29), hṛdayaghaṭṭana (= hṛtprāpti; 7.30–31), ūrdhvatā (7.32–39), pravāhikā (7.40–42),[58] śiro'rti (7.43–46), aṅgārti (7.47–53), parikartikā (7.54–57), parisrava (7.58–62).[59] The composition of drastic (tīkṣṇa) and mild (mṛdu) enemas is dealt with (7.63).

The chapter ends with some general statements on the action of enemas (7.64–65).

Chapter eight, called prāsṛtayogīyasiddhi, begins with a number of formulations (yoga) for enemas, expressed in the unit of weight called prasṛta.[60] These enemas are especially suitable to delicate (sukumāra) patients and those suffering from the bad effects of improperly applied evacuative measures (8.3–18).[61]

One of the formulations is called pañcatiktanirūha (8.8–9ab).[62]

The second part deals with diarrhoea (atisāra) as a disorder arising from the injudicious administration of enemas. Six main types are distinguished: accompanied by āma, or pakva (i.e., devoid of āma) and accompanied by faeces, vāta, blood, pitta or kapha; thirty subtypes are distinguished according to the combinations of doṣas involved. This diarrhoea may lead to various complications (upadrava), such as śūla

sthāvarajātānāṃ snehānām); 25.39 (ālukaṃ kandānām should precede nikucaṃ phalānām); 25.40 (lāmajjakośīre is preferable to lāmajjakośīram and nirvṛttiḥ puṣṭikarāṇām to nivṛttiḥ puṣṭikarāṇām; the second niḥsaṃśayakarāṇām should be replaced by nirbhayakarāṇām); 26.3 (Hiraṇyākṣa Kuśika should be substituted for Hiraṇyākṣa Kauśika); 26.43(4) (mohayati instead of mohayanti); 26.84 (sarṣapatailabhṛṣṭān instead of sarṣapatailabhraṣṭān); 27.4 (vetrāgrāmṛtā- instead of vegāgrāmṛtā-); 27.25 (sa svāduḥ is preferable to tat svāduḥ);[128] 27.55 (jaṅgalacāriṇah instead of jāṅgalacāriṇaḥ); 27.92 (kālākhyaṃ instead of kālāyaṃ);[129] 27.101 (-nālikāsuryaḥ instead of -nālikāsūryaḥ); 27.122 (sārṣapaṃ śākam is odd among the group of kandaśākas);[130] 27.128 (vātapitte praśasyate is better than vātapitte ca śasyate); 27.163 (madhurāṇy anupākīni instead of madhurāṇy amlapākīni); 27.216 (varuṇālaye instead of varuṇālayam); 28.4 (prasādākhyāḥ malākhyāś ca instead of malākhyāḥ prasādākhyāś ca); Ni.3.10 (sabubhukṣasya instead of abubhukṣasya);[131] Ni.4.14 (iksvālīrasasaṃkāśa should be read instead of kāṇḍekṣurasasaṃkāśa);[132] Vi.3.45 (tīvrādharmarucer instead of tīvrādharmārucer); 4.5 (jñānasamudayena instead of jñānasamudāyena); 5.8 (arocakāvipākau instead of arocakavipākau); 5.26 (annavahānāṃ instead of annavāhānāṃ);[133] 7.17 (trirātraṃ instead of trivāraṃ);[134] 8.11 (mādhūkībhir instead of mādhukībhir); 8.109 (śikharidaśanāḥ is preferable to śikharadaśanāḥ);[135] Śā.1.143 (vratacaryopavāsaś ca instead of vratacaryopavāsau ca);[136] Śā.5.4 (ṣaḍdhātavaḥ samuditāḥ loka iti śabdaṃ labhante instead of puruṣa iti śabdaṃ labhante); 8.3 (strīpuṃsayor avyāpannaśukraśoṇitagarbhāśayoḥ should be replaced by strīpuṃsayor avyāpannaśoṇitagarbhāśayaśukrayoḥ);[137] 8.24 (viśamāsana should replace viśamāśana); 8.47 (kṣemaka instead of kṣaumaka; kaṇakaṇikendhana instead of kaṇakakaṇṭakendhana;[138] I.2.19 (kaścid evāsya vairasyam instead of kaścid evāsyavairasyam); 5.17 (piban instead of pibet); I.5.34 (pādavarmaṇoḥ instead of pādacarmaṇoḥ); 11.21 (āhvayantaḥ is preferable to āhvayaṃs tam); 12.19 (varma vicyutam is preferable to carma vicyutam); Ci.1^1.36b (āmalakeṣv api is better than āmalakīṣv api);[139] 1^2.15 (aṣṭabhāgena instead of akṣabhāgena);[140] 2^2.8ab (sāndrībhūtaṃ taṃ kuryāt prabhūtamadhuśarkarāḥ instead of sāndrībhūtaṃ ca kuryāt prabhūtamadhuśarkaram);[141] 3.54cd (saptāhaṃ vā daśāhaṃ vā dvādaśāhaṃ suduḥsahaḥ is preferable to daśāhaṃ dvādaśāhaṃ vā saptāhaṃ vā suduḥsahaḥ);[142] 5.77c (śūlānāhaharāḥ instead of śūlānāhaharī); 6.26 (surāhvaṃ instead of surāhvāṃ);[143] 6.40 (savalkām instead of sakalkām); 7.111 (sailā instead of śailā); 7.120 (rajas instead of payas); 7.123 (pakvasurā is to be replaced by śakrasurā);[144] 7.140 (ardhapalāṃśaṃ is more correct than ardhadalāṃśaṃ); 8.58 (śleṣmāśayastham is preferable to āmāśayastham);[145] 9.22 (-pāṇiḥ instead of vāṇiḥ);[146] 13.48 (anudakaprāptam udaraṃ is better than anudakam aprāptam udaraṃ); 13.88–89ab (the correct order is 88ab, 89ab, 88cd); 13.119cd–124ab (iti paṭolādicūrṇam should be inserted after the formula); 14.43 (iṣṭakasya should be replced by dīpyakasya); 14.228–229 (iti picchābastiḥ should come after 228); 14.243 (śītoṣṇāni ca yojayan instead of yojayet); 14.252 (saśārkarāḥ instead of saśarkarāḥ); 14.253ab (dvaividhyaṃ instead of dvividhaṃ); 14.253cd (peyāś ca instead of peṣyāś ca); 15.35 (sthalaṃ nimnam ivodakam is preferable to sthalān nimnād ivodakam); 15.89 (kolāmla instead of kolāmbu); 15.97 (cānalam instead of cālanam); 15.205 (sa ghṛtaṃ instead of saghṛtaṃ); 15, colophon

142; Si.9.51); aśvakhuraka[251] (Ci.23.245); aśvāvarohikā[252] (Si.10.37); atirasā[253] (Sū. 4.10 and 18; Ci.10.35); ātmajā[254] (Ci.3.267); avaghāta[255] (Ci.7.129); avaghātaka[256] (Ka.8.3); avākpuṣpī[257] (Vi.8.151; Ci.7.114; 14.234; 29.62); avarohā[258] (Ci.3.267); avyathā[259] (Sū.4.18; Śā.8.20 and 58); bahulā[260] (Ci.8.103); bahuphenarasā[261] (Ka. 11.3); balāhaka[262] (Ci.23.11); balbaja[263] (Śā.8.41; Ci.1^4.7; 5.138); bhadraparṇī[264] (Vi.8.135); bhadraudanī[265] (Sū.4.9); bhaṇḍī[266] (Sū.27.107); bhāradvājī[267] (Sū.4.9; Vi.8.139); bilvaparṇī[268] (Sū.27.107); bodhivṛkṣa[269] (Ci.29.158); bṛhatpattra[270] (Ka.9.3); buka[271] (Ci.30.82); cakramudgaka[272] (Sū.21.25); cañcu[273] (Ci.19.32); cāraṭī[274] (Ci.9.45); carmakaṣā[275] (Ci.23.66); carmasāhvā[276] (Ka.11.3); chattra[277] (Sū.27.123); cīna[278] (Sū.27.14); cīnaka[279] (Ni.4.5; 5.6); cirbhaṭa[280] (Sū.27.112; Ci. 19.32); cukrikā[281] (Ci.8.131; 14.199 and 202; 15.89; 24.151); cukrīkā[282] (Ci.15.114; 24.151); cuñcuparṇikā[283] (Sū.27.100); daṇḍairakā[284] (Ci.26.51; Ka.1.25); dardura[285] (Sū.27.14); dāruniśā[286] (Ci.6.40); devatāḍaka[287] (Ka.2.3); dhanañjaya[288] (Ci.4.75); dhanvayāsa(ka)[289] (Sū.4.11 and 14; Ci.3.204 and 207; 4.46; 7.145; 18.178; 21.58; 26.170); dhanvayavāsa[290] (Ci.14.186); dhāvanī[291] (Ci.3.187 and 224); dugdhikā[292] (Ci.8.131; 14.198; 21.83; 26.266); dvāradā[293] (Vi.8.139; Ci1^4.15); dvīpī[294] (Vi.8. 135); dvīpikā[295] (Ka.1.22); dvīpiśatru[296] (Vi.8.135); eḍagaja[297] (Sū.3.3, 13, 15; 27.33; Ci.7.93, 103, 113, 126, 127, 160, 161); ekāṣṭhīla[298] (Si.10.23); elāparṇī[299] (Vi.8.135); erakā[300] (Sū.3.24 and 27; Ci.29.134); gandhana[301] (Sū.27.14); gandhaphalā[302] (Ci.23.57); gandhapriyaṅgu[303] ((Sū.25.40; Śā.8.24; Ci.21.90); garāgarī[304] (Ka.2.3; Si.11.12); garmūṭī[305] (Sū.27.18); gaura[306] (Sū.27.8 and 13); girimallikā[307] (Ka.5.4); gopī[308] (Vi.8.135); guḍā[309] (Ka.10.8); hāridraka[310] (Sū.26.84); hastiparṇī[311] (Sū.1. 82); hastiparṇinī (Sū.1.84); hastiśyāmāka[312] (Sū.27.17); hayagandhā[313] (Ci.28.173); hemadugdhā[314] (Ka.12.23); heman[315] (Sū.3.29; Ci.11.40; 12.36; 21.74; 24.159; 25.116 and 117); hiṅguparṇī[316] (Ci.9.57); hiṅgupattrikā[317] (Ci.9.66); hiṅguśivāṭikā[318] (Ci.10.37; 15.109); hintāla[319] (Ka.1.8); ikṣuvālā[320] (Ci.26.73); ikṣuvālikā[321] (Sū. 4.12; 25.49; Ni.4.10; Vi.8.135; Śā.8.29; Ci.2^1.24; Ka.1.25); ikṣvālikā (Ci.11.18); indrā[322] (Ka.7.19); indrāhva[323] (Ci.14.160); indrāṇī[324] (Ci.21.85 and 90); indrasāhvā[325] (Ci.6.42); indrāyudha[326] (Ci.23.12); jālamālinī[327] (Ci.23.206); jalapippalī[328] (Sū.27.171); japā[329] (Ci.1^3.57); jayā[330] (Ci.9.45); jhiṇṭī[331] (Sū.27.18); joṅgaka[332] (Ci.1^4.15); jūrṇāhva[333] (Sū.21.25; 27.18); kākāhvā[334] (Ci.21.90); kākāṇḍa[335] (Sū. 27.34); kalamba[336] (Sū.27.101); kālaṅkataka[337] (Ka.1.25); kālaṅkṛta[338] (Vi.8.135); kanaka[339] (Ci.7.74; 23.78); kanakapuṣpī[340] (Ci.7.167); kāṇḍīra[341] (Ci.3.267; Ka. 1.25); kapikacchu[342] (Ci.9.80; 11.62; 28.125 and 160); kapolavallī[343] (Vi.8.139); kapotavallī[344] (Vi.8.139); karkaśa[345] (Sū.27.97; Vi.8.143); karkaṭāhvayā[346] (Ka.7. 18); karkaṭakī[347] (Ci.18.51 and 153); karkoṭakī[348] (Ka.4.3); karṇikāra[349] (Ka.8.3); kāṣṭhagodhā[350] (Ci.1^4.7); kaṭambharā[351] (Ci.9.47); kaṭuphalā (Ci.23.66;[352] Ka.4. 3);[353] kauntī[354] (Ci.9.35; 12.65; 23.55; Si.8.13); kāyasthā[355] (Ci.9.46 and 57; 10.46 and 48; 17.141; 26.83); kelūṭa[356] (Sū.27.114); khaṇḍikā[357] ((Sū.27.28); kharāhvā[358] (Sū.23.15; 27.172; Ci.14.43); kharāśvā[359] (Ci.26.60; Si.9.8); kilima[360] (Vi.8.142; Śā.8.34 and 41; Ka.7.15); kokanada[361] (Vi.6.17); kolavallī[362] (Ci.3.210); kośātaka[363] (Ka.6.9; Si.3.56); koṭhaphala[364] (Si.11.12); koṭhaphalā[365] (Ka.4.3); krauñca[366] (Ci.23.11); krauñcādana[367] (Sū.27.116; Ci.3.258; 14.9); kṛmihara[368] (Ci.7.153); kṛṣṇacitraka (Ci.26.272); kṛṣṇapiṇḍīta[369] (Ci.26.272); kṛṣṇaśaireyaka[370] (Ci.26.268);

16.28 and 121; 20.42; 26.224);[593] mṛttikā (Sū.14.46; Ci.1^2.11; 1^4.21; 2^4.26; 4.66; 16.27 and 117; 19.65; 27.49, 51, 54; Ka.1.9);[594] pāṃśu (Vi.3.7; I.12.28; Ci.1^4.59; 23.39 and 174); pāṣāṇa (Sū.14.26 and 58; 27.209 and 210; Ci.21.131);[595] rasa (Ci.7. 71);[596] rasottama (Ci.25.116);[597] romaśa (Ci.29.152);[598] saugandhika (Sū.3.10);[599] saurāṣṭrī (Ci.7.114; 15.138);[600] saurāṣṭrikā (Ci.30.79 and 98);[601] śilāhvaya (Ci.1^3.65; 26.99);[602] śilājatu[603] (Sū.21.24; 24.56; Ci.1^3.48, 56, 58, 62; 5.97; 7.72; 13.152 and 153; 16.88; 23.213; 28.242; 29.159);[604] sphaṭika (Ci.1^4.22; 17.125);[605] suvarcikā (Sū.2.23);[606] suvarṇamākṣika (Ci.7.71);[607] svarjikā (Vi.7.17; Ci.23.215);[608] tāpya (Ci.16.78; 26.250);[609] tuttha (Sū.3.12; Ci.7.108, 114 and 120; 26.250);[610] vaigandhika (Ci.23.223);[611] veśmadhūma (Ci.26.14).[612]

This survey may be useful in facilitating an assessment of the employment of inorganic substances in the *Carakasaṃhitā*[613] and comparisons with other texts.[614]

The inorganic substances mentioned are prescribed in various forms, both externally and internally.[615] Some of these substances were heated before use.[616] Many of them were administered in the form of a powder (cūrṇa, rajas),[617] either singly or in combination with other drugs.

The intricate processes known from alchemical and later āyurvedic treatises are absent from the *Carasaṃhitā*,[618] though some are convinced that distillation is mentioned.[619] The term bhasman is employed in a sense that differs from its alchemical use.[620]

Mercury is not yet known as a medicinal substance. The term rasa[621] (Ci.7.71) refers back to the juice extracted (nigṛhīta) from the plant called jāti (Ci.7.70).[622]

A substance called rasottama, sometimes thought to be mercury,[623] is prescribed once, for external use in a lepa (Ci.25.116).[624]

The meaning of this term is a problematic issue. The presence of the verse that contains the prescription in a number of treatises gives the opportunity to compare the interpretations of various commentators. Cakra says that rasottama is either pārada (mercury) or ghee. Indu regards it as mercury (pārada). Among the commentators on the *Hṛdaya*, Aruṇadatta is silent, while the *Kairalī* agrees with Indu; Śivadāsasena, though identifying rasottama as pārada, adds that some are of the opinion that ghee is meant. The *Hṛdayaprakāśa* of the *Aṣṭāṅgahṛdayakoṣa* records that ghee is meant, though many (predecessors) identify rasottama as pārada. The *Śivadīpikā* considers it to be rasāñjana. The *Kusumāvalī* on the *Siddhayoga* remarks that rasottama is either pārada or ghee according to Cakra(pāṇidatta), or the juice (rasa) of sahakāra (i.e., the mango) according to Jinadāsa. Śivadāsasena comments (ad *Cakradatta*, vraṇaśotha 101) that rasottama is pārada, while others regard it as ghee. Niścalakara mentions that Cakra sees ghee in it, while Jinadāsa interprets it as the sweet juice of sahakāra; he himself is convinced that ghee is meant, because this is the substance corresponding to rasottama in an equivalent recipe of Jātūkarṇa quoted by him.

This survey of the various interpretations makes clear that it is far from certain, even improbable, that mercury is mentioned in the *Carakasaṃhitā*.

The more sober view that the *Kāśikāvṛtti* and a number of Purāṇas refer to the Vedic school called Carakaśākhā, without postulating any connection with the *Carakasaṃhitā*, is also represented.[84] The Carakas of this śākhā are, for example, mentioned in Viśvarūpa's commentary on the *Yājñavalkyasmṛti*.[85]

It is not clear which Caraka is meant in a passage of Jayantabhaṭṭa's *Nyāyamañjarī*,[86] where Caraka and others are described as able to reach a decision, by means of perception (pratyakṣa), on the power (śakti) of substances (padārtha), either combined or single (samastavyasta), relative to the variability of country, time, the individual (puruṣa), and the stage of the life cycle (daśā).[87]

The Caraka mentioned by Śāntarakṣita is undoubtedly the Caraka of the saṃhitā.[88]

Some passages of Vedic texts which mention a Caraka or use related words are subject to disagreeing interpretations. The Carakācārya of the *Taittirīyabrāhmaṇa* is, according to Sāyaṇa's commentary, someone who teaches the art of walking on bamboo stilts (vaṃśāgranartana),[88a] i.e., a kind of dancer (naṭaviśeṣa); this explanation, pointing to a person of a low social status, is accepted by the Gulabkunverba team and Hemarājaśarman,[89] while others prefer to see in this Carakācārya a teacher of the Carakaśākhā.[90] The *Vājasaneyisaṃhitā* is, like the *Taittirīyabrāhmaṇa*, acquainted with a Carakācārya who is enumerated among the victims at the human sacrifice called puruṣamedha; this person is regarded as a teacher of the Carakaśākhā, denunciated as the representative of a rival school,[91] as a person of low status,[92] a roaming mendicant (bhikṣu),[93] or the medical authority Caraka.[94]

The form of the Sautrāmaṇī ritual called Carakā, usually thought to be connected with the Carakaśākhā, was supposed by A. Hillebrandt to allude to the medical teacher Caraka.[95]

Other references also show that Caraka is a well known name in Vedic literature.

The Carakas formed one of the schools (śākhā) of the Black Yajurveda[96] and are subdivided into twelve ramifications in the *Caraṇavyūha*[97], one of the Pariśiṣṭas of the *Atharvaveda*. One of the recensions of the Black Yajurveda, the *Kāṭhakasaṃhitā*, may be connected with the Carakas[98] and be based on an older and lost *Carakasaṃhitā*,[99] because the Kaṭha school called itself Carakakaṭha[100] or Cārāyaṇīyakaṭha in order to distinguish it from the school of the Kapiṣṭhalakaṭhas. The precise extent of the term Caraka is, however, uncertain and it may have been applied to the whole or part of the Black Yajurveda.[101]

The Carakaśākhā was opposed to the Taittirīyaśākhā of the Black Yajurveda,[102] and, to a still greater extent, to the schools of the White Yajurveda, represented by the *Vājasaneyisaṃhitā*.[103]

One passage from the *Taittirīyasaṃhitā* has become the starting point of brisk discussions about a possible relationship between the Carakaśākhā and the practice of medicine. This passage[104] censures the twin healing gods, the Aśvins, as impure beings because they are physicians who roam about (cara) in the human world; a brāhmaṇa should therefore not practise medicine.

J. Filliozat has argued that the use of the term cara is a shot at the rival school of the Carakas,[105] who have not inserted anything similar in their saṃhitās, the *Kāṭhaka-* (27.4), *Kapiṣṭhalakaṭha-* and *Maitrāyaṇīsaṃhitā*, which relate a similar story about the

great divine sages (devarṣi), the science of medicine came down from the gods to the human world, to the king of Benares; it was called the divine Brāhma system.[36]

The biography of G-yu-thog yon-tan mgon-po mentions six systems of medicine: the system of binding diseases by spells, which belongs to the Asuras, the *Gso-dpyad ḫbum-pa* of Brahmā, the Bodhisattva system, laid down in a text called the Mercy of self-release, the *Ca-ra-ka sde-brgyad* of the ṛṣis, the *Mahādevatantra* of the non-Buddhists, and the *Rigs-gsum mgon-po rgyud* of the Buddhists.

Other Tibetan medical works referring to Caraka are the *Dpag-bsam ljon bzaṅ* of Sum-pa mkhan-po,[37] the *Mkhas-paḫi dgaḫ-ston* of Chos-rgyal don-grub,[38] Jayapaṇḍita's biography of G-yu-thog-pa in the *Thob-yig*,[39] and the *Śes-bya kun-khyab* of Ḫjam-mgon koṅ-sprul blo-gros mthaḫ-yas.[40]

Chapter 13
Authorities associated with the Carakasaṃhitā

Atri

Atri[1] is the name of a priestly family already found in Vedic literature. Many hymns of the *Ṛgveda*, in particular of maṇḍala five, are attributed to the Atris and members of their family, the Ātrayas.[2] A number of myths about an individual seer called Atri are referred to in the *Ṛgveda*, *Atharvaveda* and some Brāhmaṇas. One of these myths tells that the Aśvins saved him from a burning pit;[3] once, the Aśvins are said to have made him young again.[4]

Atri is a well known sage in many branches of Sanskrit literature. He is often mentioned in the epics, Purāṇas, etc.[5] He belongs to the group of seven seers (saptarṣi),[6] and is one of the lords of created beings (Prajāpati).[7]

Atri's name is connected with a number of sciences,[8] such as dharmaśāstra,[9] jyotiṣa,[10] vāstuśāstra,[11] and medicine.

Medical authors and works referring to or quoting Atri are: the *Bṛhannighaṇṭuratnākara*,[12] *Carakasaṃhitā*,[13] *Haṃsarājanidāna*, *Hārītasaṃhitā*,[14] *Kāśyapasaṃhitā*,[15] *Lakṣmaṇotsava*, Nṛsiṃhabhaṭṭa's *Tāmbūlakalpasaṃgraha*, Pālakāpya's *Hastyāyurveda*,[16] Aśubodha and Nityabodha Senagupta in their commentary on the *Rasaratnasamuccaya*,[17] Śivadāsasena,[18] Ṭoḍara,[19] Vāgbhaṭa's *Aṣṭāṅgahṛdayavaidūryakabhāṣya* and *Aṣṭāṅgasaṃgraha*,[20] Vāṇeśvara Bhaṭṭācārya's *Rasaratnadīpikā*,[21] Vāsudeva's *Vāsudevānubhava*, Viśvanātha Dvivedī's *Rasendrasambhava*,[22] and the *Yogaratnākara*.[23]

Vāsudeva's *Vāsudevānubhava* mentions among its sources, next to Atri, a *Bṛhadatri* and *Laghvatri*. These works are reminiscent of similar versions of the *Ātreyasaṃhitā* (= *Hārītasaṃhitā*).[24]

An *Atrisaṃhitā* is referred to or quoted in Baladeva Prasāda Misra's *Āyurvedacintāmaṇi*,[25] Jīvānandavidyāsāgara's commentary on the *Rasendrasārasaṃgraha*,[26] Raṅgajyotirvid's *Vicārasudhākara*,[27] and the commentary of Āśubodha and Nityabodha Senagupta on the *Rasaratnasamuccaya*.[28]

Quotations from Atri and the *Atrisaṃhitā* may actually be from the *Hārītasaṃhitā*.[29]

Noteworthy features of these quotations and references are: an *Atrisaṃhitā* is mentioned, occasionally next to an *Ātreyasaṃhitā*; Atri takes the place of Ātreya in some traditions about the origin of āyurveda; Atri is identified with Kṛṣṇātreya; some recipes are attributed to him; a definition of a drug action (saṃśamana) and descriptions of yantras (and a puṭa) are ascribed to him; he is interested in elephantology.

its contents fully agree with verses which do form part of its text (Ca.Ci.3. 53cd–61ab). Probably, Vāgbhaṭa summarized the essence of what he knew to be the opinion expressed in the *Carakasaṃhitā*; however, one cannot exclude that he was acquainted with a view traditionally ascribed to Agniveśa. This does not mean at all that the evidence collected from Vāgbhaṭa's works proves that the *Agniveśatantra* was available to him.

G. Mukhopadhyaya's allegation that Agniveśa's work still existed when the old *Sauśrutatantra* was redacted by Nāgārjuna and became known as the *Suśrutasaṃhitā*,[226] rests on very slender evidence. The *Suśrutasaṃhitā* does not mention Agniveśa's name; it only refers to the treatises of the six kāyacikitsā specialists[227] and several other groups of experts, used in the composition of the Uttaratantra (Su.U.1.4cd–8ab); this is a statement of the same type as that found at the beginning of Vāgbhaṭa's works.

The claim of many Indian authors that the *Agniveśatantra* remained accessible for many centuries, up to the times of Cakrapāṇidatta, Vijayarakṣita, Śrikaṇṭhadatta and Śivadāsasena,[228] is not supported by solid evidence;[229] it rests on the shaky basis of the uncritical acceptance of the genuineness of the quotations and on the conviction that the occurrence of these quotations means that MSS containing the complete text were still extant. Acknowledgment of the additional quotations found in Ṭoḍara's *Āyurvedasaukhya* and Anantakumāra's *Yogaratnasamuccaya*, neglected by the majority of Indian authors or unknown to them, would oblige them to raise the limit of the period in which the *Agniveśatantra* could be consulted. It would, moreover, be hard to explain that in the period of compilation of Ṭoḍara's *Āyurvedasaukhya* a large body of material from the *Agniveśatantra* could be collected that was overlooked by the commentators on the classical medical treaties.

The majority of the citations referred to by these authors in order to substantiate their claims are of the nature of paribhāṣās; these technical rules belong to a special group of quotations which are probably from an *Agniveśasaṃhitā*, a work that impresses as entirely different from the *Agniveśatantra* and of a later date. Paribhāṣās do not form part of the *Carakasaṃhitā* and are usually found in the commentarial literature or specialized works like the *Bheṣajakalpa*, attributed to Bharadvāja.

As I have already mentioned, the quotations attributed to Agniveśa belong to several groups. In my opinion it is impossible to decide whether or not some may be from the old *Agniveśatantra*, because of the absence of reliable criteria. No one knows what the *Agniveśatantra* looked like, in spite of assertions to the contrary.[230] P.V. Sharma has advanced the hypothesis that the *Agniveśatantra* was a work in sūtra style, resembling the *Arthaśāstra*; Caraka expanded the text, rewrote the descriptions of the assemblies of sages in the form of dialogues and added the summaries at the end of each chapter.[231] The same author has tried to isolate elements of the *Carakasaṃhitā* that in his view belong to its oldest layer, i.e., the *Agniveśatantra*.[232]

The quotations do not support the hypothesis that Agniveśa's work mainly consisted of sūtras; by far the larger part of the citations are in verse.[233]

Peculiarities found in quotations from Agniveśa which throw doubt on their authenticity or point to a date later than Dṛḍhabala's completion of the *Carakasaṃhitā* are: the use of the term ekarūpa yakṣman for an epidemic disease;[234] the absence of

that Patañjali was known as a medical authority to the authors of a *Yogaratnākara*[620] and *Yogaratnasamuccaya.*[621] Āśubodha and Nityabodha Senagupta reproduce, in their commentary on the *Rasaratnasamuccaya*, some quotations from Patañjali and the *Pātañjala* found in Śivadāsa's commentary on the *Cakradatta.*[622]

Satyanārāyaṇaśāstrin's *Padārthavijñāna* also quotes Patañjali and the pātañjalāḥ; some of these quotations are, however, from the *Carakasaṃhitā.*[623] A quotation from the *Pātañjaladarśana* in Yogendranātha's *Āyurvijñānaratnākara* is from the *Yogasūtra.*[624]

Govindadāsa's *Bhaiṣajyaratnāvalī* contains a recipe attributed to Patañjali.[625]

The references and quotations in the works of Āśubodha, Govindasena, Kāśīrāma, Niścala, Śivadāsasena and Trivikrama indicate that Patañjali's work dealt with metallurgy (lohaśāstra) and its application to medicine. B. Seal claims that Patañjali gave elaborate directions for many metallurgic and chemical processes, especially the preparation of metallic salts, alloys and amalgams, and the extraction, purification and assaying of metals; he adds that it was probably Patañjali who discovered the use of the mixtures called viḍa. B. Seal regards Patañjali's *Lohaśāstra* as a later work than that of Nāgārjuna on the same subject, an opinion based on the observation that the former's directions concerning particular processes are more complicated than those of the latter.[626]

Other medical writings ascribed to Patañjali are a *Vātaskandha* and *Siddhāntasārāvalī*; the latter work incorporates a *Paittaskandha.*[627]

The Indian tradition regards Patañjali as the author of a lost tantra on rasāyana.[628] Al-Bīrūnī was acquainted with Patañjali's association with rasāyana.[629]

Patañjali is the name of at least two famous authors; the one wrote the *Mahābhāṣya*, the other the *Yogasūtra.*

An interesting development made the two fuse into one Patañjali, who, in addition to his expertise in grammar and yoga, was also credited with a thorough knowledge of medicine and allied subjects.

The medical works already referred to are often attributed to this composite Patañjali, as well as a commentary on the *Carakasaṃhitā*, Vārttikas on that work, or a revised version of it. As a further complication, he is even considered to be identical with Caraka.

The threefold Patañjali is mentioned as a pratisaṃskartar of the *Carakasaṃhitā* in the introductory verses of Cakrapāṇidatta's *Āyurvedadīpikā.*[630] His Vārttikas on the *Vaidyakaśāstra* are referred to in Rāmabhadradīkṣita's *Patañjalicarita,*[631] written at the end of the seventeenth or the beginning of the eighteenth century.[632] The tradition that a Patañjali wrote Vārttikas on the *Carakasaṃhitā* is endorsed by G. Hāldār, who asserts that Vijayarakṣita, in his part of the *Madhukośa*, quotes one of these Vārttikas,[633] which, after having existed independently, were incorporated in the text of the *Carakasaṃhitā* in the first century A.D.[634] The same author is convinced that one of Patañjali's Vārttikas is cited in Nāgeśabhaṭṭa's *(Vyākaraṇasiddhānta)mañjūṣā.*[635] The claim that Patañjali made additions to the text of the *Carakasaṃhitā* was also advanced by Sūramcandra.[636] Gaṇanātha Sena[637] regarded him, in agreement with Cakrapāṇidatta, as a pratisaṃskartar of the *Carakasaṃhitā.*